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CD-ROM Edition

the net

Ultimate Internet Guide

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How To Get There.

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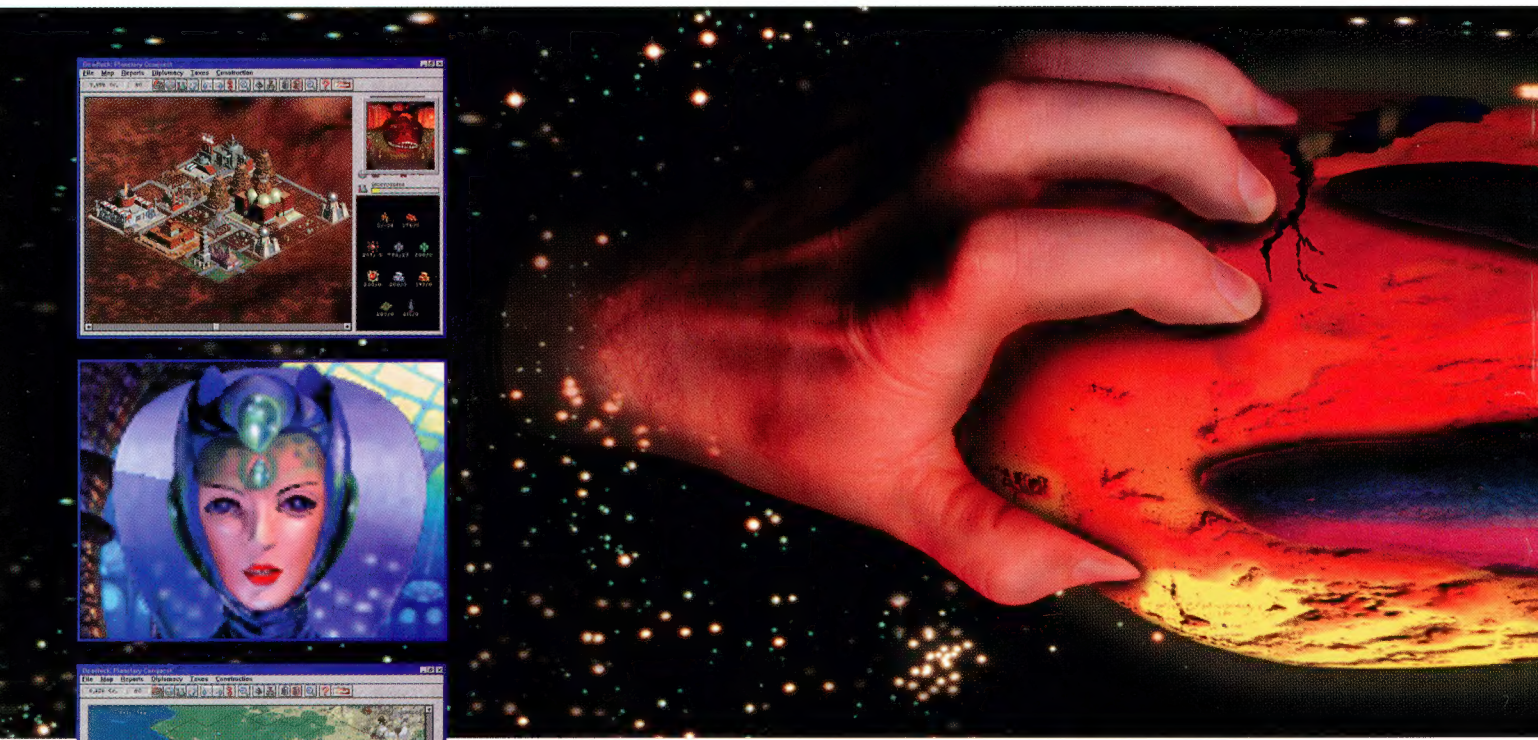

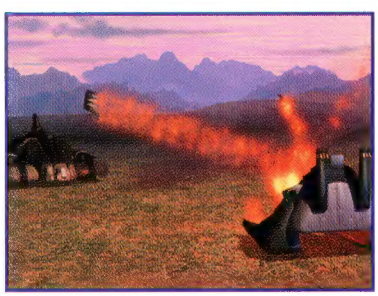

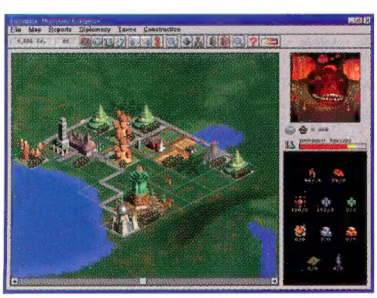

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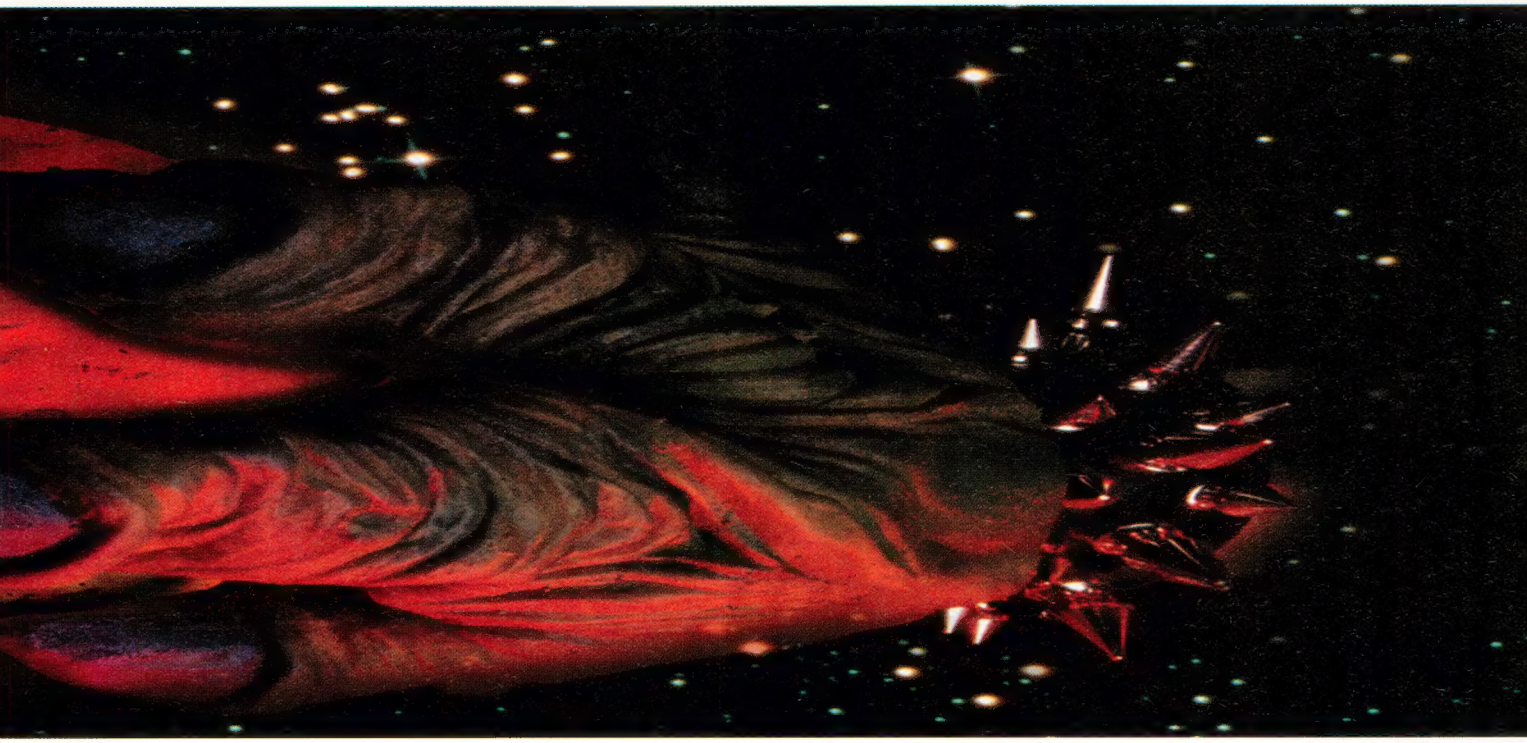

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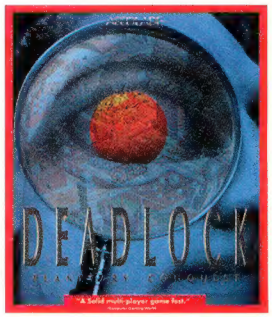

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the net
July 1996 Vol. 02, No. 2

FEATURES

the reflector
A Website for CU-SeeMe Addicts

BREAK THE SOUND BARRIER

Our guide to using the net for hearing cool radio shows, making free phone calls, and conducting face-to-face chats with your long-distance friends:

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39 | Beam Out: Videoconferencing Comes of Age by Todd Marshall

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c|net radio
c|net: the computer network
click here for instructions

MAKING MONEY ON THE INTERNET:
How to Succeed in Cyberbusiness

44 | Can you give up your day job and make money on the Internet? Web watchers predict that anyone who creates content with value for the average consumer will have a commodity in great demand. Laurie Berger investigates who is making money on the net, and why.
Plus: *16 strategies for net money-making success.*

tripod
tools for life

netPOWER

CD CONTENTS

Page 05:

If you have the CD-ROM edition of *The Net*, you'll want to know what's on our *netPOWER* disc. Check out page 05 for information on how to cruise our favorite sites off-line, get access to the Blue Pages (current and archived), use our enclosed Internet phones, and more!

If you didn't get the CD version of *The Net* and would like to do so, please also turn to page 05 for instructions on how to get your very own disc.

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netPOWER

A Disc to Give You an Edge Online
July 1996

Instructions for Using Our Disc

This month, there's lots of stuff to play with on our disc. You'll find everything from Enhanced CU-SeeMe to the latest in audio shareware, Internet phones, and browser plug-ins.

netPOWER is also a convenient archival resource of hyperlinks from the pages of *The Net*. The disc includes more than 3,000 URLs – from our features section, Blue Pages, how to articles, and more – that will provide you with hours of hassle-free browsing. It's our effort to save you the frustration of retyping the URLsfrom *The Net* that pique your interest. What's more, *netPOWER* will help you keep your bookmarks manageable: No more bookmarking every time you come across a great site from the magazine – just pop the disc in, and use the provided resources.

DIDN'T BUY THE DISC VERSION OF *THE NET*??

WANT TO GET A HOLD OF THIS *netPOWER* DISC YOU KEEP HEARING SO MUCH ABOUT?

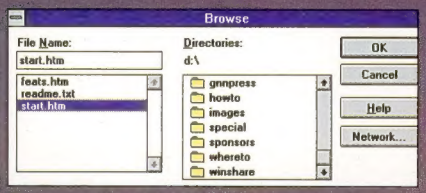
Each month, we sell two versions of ***The Net*** – one with a disc, and one without. If you have the non-disc version and want the ***netPOWER*** disc (which supplements the contents of the magazine), you can pick up a disc for only $3.99. Call ***The Net***'s customer service line at 415 468 4869 (8 a.m. to 5 p.m. PST), or send an e-mail to subscribe@thenet-usa.com, with "Buy Net Disc" in the Subject line.

HOW TO USE THE DISC:

To access Sites of the Month, Blue Pages, Archived Resources, Hyperlinks, and Starter Kit:

Windows:

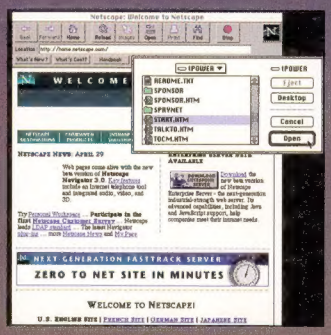
1. Put the *netPOWER* disc into your CD-ROM drive.
2. Open your Web browser.
3. Choose "Open local" or "Open file" from the File menu. (Note: If you are a Pipeline NY customer, you will need to use a different browser, as Pipeline's browser does not allow you to open local files.)



4. Choose "D:\START.HTM" (assuming D: is your CD drive). Be sure that the open dialog says "show.htm files" if you're using a browser from an online service.
5. If you cannot locate the START.HTM file, make sure that under "files of type" you have selected all files (*.*).

Macintosh:

1. Put the *netPOWER* disc into your CD-ROM drive.
2. Open your Web browser.
3. Choose "Open local" or "Open file" from the file menu.
4. Click on the desktop button, open "netPOWER," and then open "START.HTM."
5. Alternatively, you can drag the START.HTM file on top of your browser's icon to open it.



To Access all Other Files on *netPOWER:*

Windows 95:

1. Insert the *netPOWER* disc into your CD-ROM drive.
2. Under the "Start" button, select "Run."
3. In the "Run" window select "Browse", and look in "D" (assuming that "D" is the letter of your CD-ROM drive). Under "Files of type" select "All files (*.*)"

Windows 3.x:

1. Insert the *netPOWER* disc into your CD-ROM drive.
2. Go to the Program Manager window, choose "Run" and select "Browse" from your "D" drive (assuming D is the letter representing your CD-ROM drive).
3. Under "Files of type" select "All files (*.*)"

Macintosh:

1. Insert the CD into your CD-ROM drive, and look on your desktop for the *netPOWER* window, which contains the folders for shareware, advertising, and clip art.

CONTENTS OF *netPOWER*:

Mirrored Web Sites

netPOWER takes the best Web sites and mirrors parts of them on the disc. That means that we've stored locally on this CD-ROM the Web pages you would see if you were cruising the Internet. This way, you'll be able to easily access these sites off-line – and at lightning-fast speed. To do this, you'll need to use your Web browser. Important: America Online users cannot use the AOL browser while offline.

Internet Phones

(Located in the HOWTO folder for Mac users; in the PHONES folder for Windows users)

• **WebTalk** allows any Internet connected computer user to have real-time, full-duplex, telephone-like audio conversations over the Internet. WebTalk is the next-generation product for interactive communications over the net, moving greatly beyond the capabilities of today's very popular text based chat.

• **TeleVox** includes the following features: easy-to-use interface, server-based Internet phone, hands-free operation, full-duplex audio capability, file transfer capability, text chat capability, caller ID, call blocking, and the Netscape interface to Web pages associated with the announcements section of the TeleVox window.

• **Internet Phone™** lets users conduct unlimited long distance and international conversations for the cost of an Internet connection. Internet Phone incorporates VocalTec-developed voice compression, voice packet reconstruction, and delay handling mechanisms to enable users to enjoy real-time conversations over the Internet simply by dialing into the network and taking advantage of the multimedia capabilities built into many of today's PCs.

• **Speak Freely 6.1** is a Windows application that allows you to talk over a network. If your network connection isn't fast enough to support real-time voice data, four forms of compression may allow you to converse nonetheless, assuming your computer is fast enough. To enable secure communications, encryption with DES, IDEA, and/or a key file is available. Users can find one another by communicating with a "Look Who's Listening" phonebook server. You can designate a bitmap file to be sent to users who connect so they can see who they're talking to.

Shareware**

This month, *netPOWER* has lots of great shareware. All shareware is stored in folders. Note: YOU CANNOT LAUNCH SHAREWARE FROM THE HTML PAGES OF *netPOWER*. You must exit your browser and go to the following folders:

Windows:
AUDIO: audio editors and players
HELPERS: helper apps
PHONES: Internet phones
PLUGINS: Netscape plug-ins
PRESENT: presentation software demos and players
Cuseeme: enhanced CU-SeeMe

Macintosh:
HOWTO folder: all shareware on the *netPOWER* disc is stored here

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netPOWER Sponsors:

To access sponsors' material: If you have an external modem, make sure that it is on and that you are online.

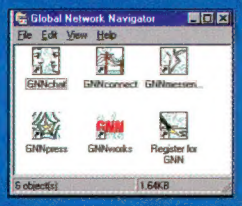
Global Network Navigator

http://www.gnn.com/

Sign on today!

- Get fast and easy access to the World Wide Web, newsgroups, and more.
- Explore the net using WebCrawler, the easy-to-use Internet directory search tool.
- The installation is simple, and there's free customer support.

Here's how to sign on:



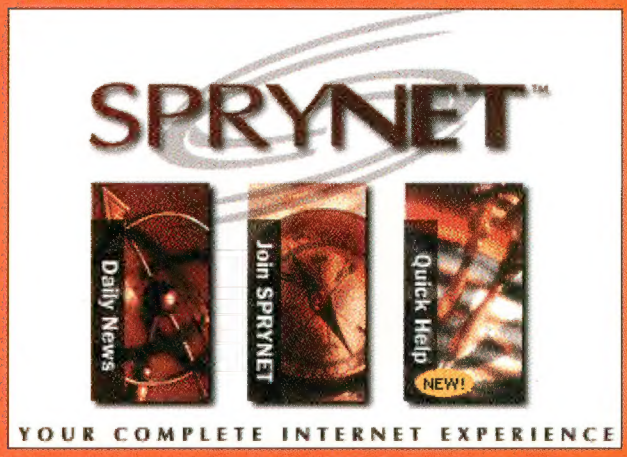
1. Insert this CD in your CD-ROM drive (D or E).
2. Select "Run" from the file menu of your Windowsx Program Manager, type "D:\GNN\SETUP" (or "E:\SETUP"), and click "OK" to install the GNN software and register for the GNN service.
3. Then, follow the simple, step-by-step instructions on your screen, and when prompted, enter the registration number and password found on the insert that came inside the CD-ROM sleeve.

Windows 95 users: replace Step 2 above as follows: Click on the "Start" button on the Windows 95 Task Bar and select "Run"; type "D:\GNN\SETUP" (or "E:\SETUP"), and click on "OK" to install the GNN software and register for the GNN service.

Sprynet

http://www.sprynet.com/

Sprynet gives you the best of the Internet, with comprehensive service, support, tools and more. Sprynet is quick by design and built exclusively for you.



WebPhone

http://www.netspeak.com/

WebPhone™ is the professional, full featured Internet telephone from NetSpeak. WebPhone provides telephone-quality, real-time, full-duplex, encrypted, point-to-point voice communication over the Internet and other TCP/IP-based networks. Using WebPhone, you can talk to anyone, anywhere on earth without incurring long distance charges. To experience WebPhone, run wpsetup.exe from Windows. (Sorry, Mac users!)

EarthLink Network, Inc.

EarthLink is a full-service Internet access company specializing in providing services for individuals and business throughout North America. Visit the EarthLink Web site at http://www. earthlink.com/, and sign on today using the *netPOWER* disc. Windows users go to the "EARTHLNK" folder, and Mac users to the "EarthLink" folder.

Windows 95 and Windows 3.x:

1. For Windows 3.x, go to the "Run" window and type "D:\EARTHLNK\WIN3.1\SETUP.EXE" (assuming D is the letter representing your CD-ROM drive).
2. For Windows 95, go to the Run window and type "D:\EARTHLNK\WIN95\SETUP.EXE" (assuming D is the letter representing your CD-ROM drive).
3. Follow the instructions to register your new EarthLink Network TotalAccess account.
4. If at any time you need help, click on the "Help" button, or press F1.

Macintosh:

1. Open the EarthLink folder within the *netPOWER* window on your desktop.
2. To sign up with EarthLink, double-click on the installer icon and follow the instructions to register your new EarthLink Network TotalAccess account.
3. If at any time you need help, click on the "Help" button, or press F1.

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Get on the Internet, using the world's most reliable network, with high-speed local dial-up throughout 92% of the U.S. and 24-hour customer support. Pretty much the only things you're not getting are leather seats and a really trick stereo.

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From the Editor:

What do you do when you want to hear your favorite band playing? Or get the latest in business or sports news?

The answer to the first question used to be, just turn on the radio, or run out and buy a CD to plop into your stereo. To the second, anyone would have advised subscribing to a newspaper, turning on CNN, or tuning into an all-news radio station. But more and more, the answer is: Fire up your Web browser and hop onto the net.

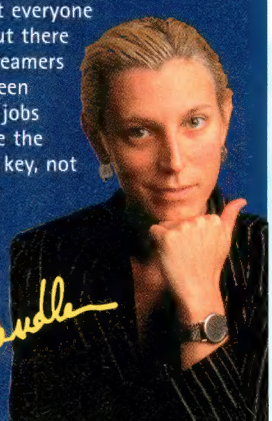
There are literally hundreds of sites (and more are being created every day) that deliver news, music, and live events over the Internet, relying on technology that's rapidly becoming a mere download away. Dozens of small and large news and entertainment organizations have newscasts that you can listen to as you surf the Web. Music label home pages are providing sound clip samples, and a burgeoning number of exciting listening stations let you play whole songs as you roam from site to site. Rock concerts, sports games, political speeches, and talk-radio shows are increasingly being broadcast on the net. There's even a site — the Internet Underground Music Archive (**http://www.iuma.com/**) — that lets you, for a fee, upload your own music for play by Internet users the world over.

And now, one more question: What do you do when you want to hear the voice of a friend who lives 2,000 miles away? Pick up the phone, you say?

Again, these days, the answer is: Use the net to place your call (just make sure you and your friend are using compatible software and, in some cases, compatible operating systems). Sure, there will be noticeable gaps between when you speak and when your friend hears your words, but it's a much cheaper endeavor than a regular phone call.

This month, our three-part cover feature focuses on how you can use the net to get audio on demand, make telephone calls, and participate in live videoconferencing broadcasts. Find out all about it, starting on page 28. And if you have a PC and use Windows 95 but don't know how to get your system set up for sound, phone-calling, and videoconferencing, visit pages 52-55 for a practical, step-by-step guide by Andrew Mundy.

This issue also marks Part One of an investigative piece by Laurie Berger on whether anyone — besides big-time investors and search engine companies — is making money on the Internet (pages 44-48). She speaks to a variety of net entrepreneurs to find out what works and what doesn't. Not everyone has a success story, but there are definitely some dreamers out there who have been able to quit their day jobs and do what they love the most, on the net. The key, not surprisingly, is adding value to content.



Linda Sandler

e-mail

Your Comments, Kudos, and Conversations
E-Mail: talktous@thenet-usa.com

About Your CD

I bought my first issue of your magazine a month before I had my Internet connection and thought it was great, but I put the CD-ROM in a drawer somewhere and forgot about it. Yesterday I found it and used it and think your magazine is spectacular! I rushed out to buy the new issue this afternoon and as soon as I send this I'll get back to it.

Keep up the good work. I'm telling all my friends about you.

Leslie Pauline England
lulu@premier1.net

The Lord Giveth, the Lord Taketh Away

Kudos on the best damn Internet magazine in existence. There is none better, and I have tried them all.

The bad news is that it is a disaster for those of us persons with visual disabilities. Not only is the print too small, but the background colors of the articles make them impossible to be seen by us even with a magnifier.

Perhaps a visit to an independent living center would give you some insight on how to keep the stupendous content, while letting us see it at the same time. Those of us with disabilities would like to use the best damn Internet magazine in existence, too.

Mark Snyder
msnyder@exis.net

Dear Mark: We toyed with the idea of enclosing a magnifying glass with each issue to address this problem, but our production folks gave us a thumbs down on this idea. So instead, we've decided to bump up the typeface throughout the magazine (except the Blue Pages, into which we continue to cram as much Internet resource material as possible). Enjoy!

Awesome Insider Online Tricks

Regarding your article in the June 96 issue (pages 49-51), I have another addition to "Tip 4: Need for Speed."

With Internet providers crawling out of the woodwork like loonies on a full moon night, many of them are buying, in large quantities, whatever modem is the cheapest at the time, or getting special deals on "really reliable" modems from vendors. Check with your local ISP. It may have some modems that it had to get rid of because dial-up compatibility problems.

Case in point: I got my modem (a MultiTech 28.8 ZDX Multimodem) from a local provider who started up about the same time as everyone else in this town. MultiTech made a deal with the vendors and sold them a load of good, reliable V.34 modems at a low price. MultiTech failed to contact any of the future customers of the ISP, who all had bought low-cost, decent, but not incredible Cardinal and Zoom modems. The Cardinals and Zooms promptly failed to connect with any of the MultiTech modems. I contacted one of the providers, and he was willing to unload some of his modems for $150 a pop, cash-money, just to free up some capital to buy some Cardinals and Zooms so he could actually connect to his clientele.

It pays to investigate all the resources, even oddball ones, before plopping down a wad at your local "discount" electronics store.

Albert A. Freeman
acef@ballistic.com

Hemingway Maligned?

In the Blue Pages in your May 1996 issue, Steve Szyszko reviews a site (page 78) dedicated to Ernest Hemingway – The Papa Page. Incredibly, he describes Hemingway as "...a one-trick pony who drank away what little talent he did possess, but that isn't reason enough to dislike this page." Steve goes on to say: "The site is a solid, if unexciting, source of information of the bearded suicide."

Is it your editorial policy to have monsters review Web sites? Steve has the audacity to call a man who won the Pulitzer prize in 1953 and the Nobel prize for literature in 1954 "a one-trick pony" with little talent? Steve then compounds his stupidity and cruelty by referring to a deeply depressed man who struggled with his own demons and lost as a "bearded suicide." I guess it doesn't bother Steve that the "bearded suicide's" family members are still alive, and that their grief over the loss of their loved one should be looked upon with such hatred and contempt.

I think your magazine should publish a public apology to the American public and Hemingway's family for Steve Szyszko's unexplainably bizarre and hateful description of Ernest Hemingway.

Tom Gulch
tgulch@emanon.net

Tom: Thanks for the comments. While we're none of here Hemingway devotees, we agree that it was inappropriate to characterize the man that way. Irreverence, however, is stock-in-trade here and will continue to be, but we do recognize that there's a fine line between intelligent, valid criticism spiced with wry comments, and outright dismissals and insults. We'll try to keep things more balanced in the future. Insensitive remarks about suicide are definitely out. Still, we come up short on printing an apology. Hemingway himself had a pretty thick skin, and didn't exactly spare other writers his wrath. I think he'd shrug it off.

And while our reviewers (and most of

us on staff writer reviews) may not be Pulitzer Prize winners themselves, as vaunted a writer as Norman Mailer once wrote of Hemingway that he "never wrote anything after that (winning the Nobel) that could upset your grandmother." Now, that probably would have hurt old Ernest, but should Mailer apologize to the American public? Nah.

Grendel's Gaming Lair

As someone who has been around the Internet for a while, I was excited to hear that something I did made a small dent if nothing else in Web. I have been working on Grendel's Gaming Lair (**http://www.csra.net/jononkeyz/games/gaming.htm**) for some time, simply for fun, and for the purpose of informing other PC gamers like myself of what is happening in the world of games for the PC. I was thrilled when someone e-mailed me with the message that I was reviewed by your Blue Pages in the April 1996 issue (page 73). Even after reading the review (I rated C), I was glad that someone thought enough of the site for inclusion in your magazine. However, we have been making many changes and improvements in the Lair over the last few months. Changes for the better! We are even getting our own domain in the next several weeks. So, come back and visit soon.

Grendel
jononkeyz-grendel@csra.net

Had to See for Myself

Well, you said (in your June issue, page 35) that The Big Button (**http//www.wam.umd.edu/~twoflowr/button.htm**) really didn't do anything, but of course, I had to see for myself. Guess what?

It really *doesn't* do anything!

Thanks for giving me something else to waste my time on, and keep sharing those totally wacky, pointless, hilarious sites!

Shanna T. Bar-Giora
BXJB41E@prodigy.com

Online Gaming

I can't believe *The Net* left out Catapult Entertainment's X-Band Video Game Network (**http://www.xband.com**)! While praising The Sega Channel's ability to download games, the writer forgot to mention its one major weakness: You can't play against someone over it. X-Band allows you to compete online and send e-mail cheaply.

All you need is a Sega Genesis or Super Nintendo, the modem (which retails between $10-$20), and a compatible game. Think you're the best at Mortal Kombat 3 or NHL 96? Try playing some of the top ten X-Banders that are listed weekly. Coming this summer, X-Band will allow the Windows 95 users to play twitch games like *DOOM, MechWarrior 2,* and *Super Street Fighter 2* over the Internet!

Karl Cramer Jr.

SIGS OF THE MONTH:

"After the last Presidential election, it has been determined that the light at the end of the tunnel was a train."
thanks to Douglas Jackson II

"Art is a moral passion married to entertainment. Moral passion without entertainment is propaganda, and entertainment without moral passion is television."
-Rita Mae Brown
thanks to Randy Delucchi

WHAT ABOUT *netPOWER*?

Many of you have picked up *The Net* at newsstands, taken it home, flipped through it, seen references to our *netPOWER* disc, and asked: Why doesn't my magazine have a CD-ROM? Just to let you know:

We publish two versions of *The Net*: one with a CD ($4.99), and one without ($2.99). If you bought the non-disc version but would like to have the disc, please call our Customer Service department (415 468 4869 between 8 a.m. and 5 p.m. Pacific Standard time) to order a copy.

Red in the Face

The URL for Hot 100 Web Sites (*The Net* June 96, page 90) is **http://www.web21.com/services/hot100/index.html**.

The URL for Lilly's Web Toolbox (*The Net* May 96, page 12) is **http://www.tripod.com/~lirani/webbie.htm**

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The Kids Are All Right

cyber safe

Making the Internet safe for kids has been a big topic this year. And with children under 18 making up a little more than 10 percent of Internet users, according to a study by Find/SVP (**http://etrg.findsvp.com/features/newinet.html**), it's no wonder that content creators are at work making "kid-friendly" areas. These virtual playgrounds are designed to let kids find material relevant to their interests, while preventing parents from worrying that their offspring will stumble across mature material.

Search engine powerhouse Yahoo! (**http://www.yahoo.com/**) has put together a kid-oriented version of its site called Yahooligans! (**http://www.yahooligans.com/**). According to Maury Zeff, the new site's senior producer, "the [estimated] growth rate of the kid demographic to the end of the century is phenomenal." Yahooligans! takes advantage of this trend, being designed specifically for Web surfers aged 8 to 14. The company notes in its description of Yahooligans! that "we do carefully check every site that goes into" it. In fact, the sites included in Yahooligans! are picked by a company called Ingenius (**http://www.ingenius.com/**), which specializes in content appropriate for children. Yahoo! also has partnerships with *FamilyPC* magazine and Random House for original content. Opening menu categories that kids can search on include Around the World; Art Soup; Computers, Games, and Online; Entertainment; School Bell; Science and Oddities; Sports and Recreation; and The Scoop (for comics, daily news, weather, and more).

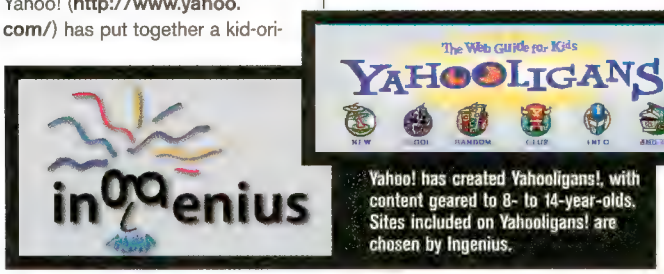
CompuServe, meanwhile, has launched WOW!, an online service with a special area for kids. WOW!, allows parents to give children their own accounts. The kids, in turn, are only able to access an interface that's been designed specifically for them. Content for WOW! is controlled by an advisory panel of 100 elementary school children, who review and recommend areas for the service. Rich Baker, director of communications for WOW!, says the service was designed "for the next generation of user," who CompuServe believes will want a "safe, secure area for kids." WOW! is being priced very competitively with other online services; unlimited access is offered for $17.95.

McKinley, the creator of the Magellan Internet Guide (**http://www.mckinley.com/**), this summer is releasing a kid's site called KaZoom!.

It says the site will have a great deal of original content. The Internet publishing company is working with the Creative Artists Agency (**http://www.caa.com/**) to contract celebrities to host areas of the Web site.

One thing that the kid-oriented content sites appear to share is a fondness for exclamation points by their creators.

–Wayne Cunningham



Yahoo! has created Yahooligans!, with content geared to 8- to 14-year-olds. Sites included on Yahooligans! are chosen by Ingenius.

CompuServe's new online service, WOW!, has a special content area for kids.

drift net

The Elephant Obsession

This month's DriftNet has been directly influenced by the '96 presidential campaign. There hasn't been a whole lot of *sturm und drang* on the Democrat side, but the Republican campaign has been full of fun, as potential candidates make fools of themselves trying to appeal to right-wing zealots and end up doing the old crash and burn. In honor of the GOP's political theatre, DriftNet has taken an interest in its venerable icon, the elephant.

The Elephant Manager's Association
http://www.indyzoo.com/ema/
Scott Reed's and Terrance Jeffrey's favorite newsletter.

Free Elephant
http://www.crst.edu/~bvisbl/m/
This is a humor e-zine by two students who, for some reason, have no obvious Republican affiliation.

Dan Koehl's Elephant Home Pages
http://www.elephant.se
Dan is Swedish, so it doesn't matter if he's a Republican or not.

Toby's Home Page
http://bigger.cc.uic.edu/%7Etoby-g/tobyplan.html
Look for the non-political elephant jokes at the bottom of the page.

An Elephant Homo Page
http://raptor.cic.flint.umich.edu/~mcdonald/
We didn't know elephants could write HTML, but being able to remember the tags must help.

Elephant Web
http://www.iook.it/e-zine/elephant/elew.htm
An Italian site with more stuff about music than Republicans.

PhatWeb
http://haven.ios.com/~mason12/tim2.html
A flying elephant conspiracy FAQ.

African Travel Gateway - Zimbabwe Focus
http://cy.co.za/atg/atgbroc.html
When a Republican travels to Africa and sees an elephant, does it bring a tear to his eye?

Año Nuevo Home Page
http://users.aimnet.com/~jfox/anonuevo/
According to some, this page should be disqualified, as it deals with elephant seals.

Hung Kuo Elephants
http://www.tradewatch.com.tw/elephants/ecover.html
The number-one basketball team in Asia can't run for president, as members are not native-born. Too bad.

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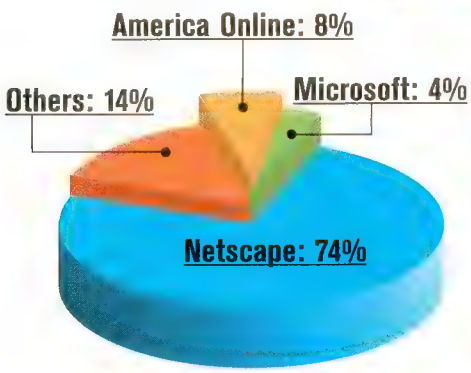
How Do *You* See The Web?

The most popular way, according to a 1996 study by Forrester Research (**http://www.forrester.com/**), is through Netscape's Navigator browser. Microsoft is in hot pursuit, though, with its Internet Explorer, and should have a much bigger chunk of this pie by the end of the year. But for now, Netscape remains the clear leader. Attribute this to Netscape having gotten the best product out first, and leveraging the distribution channel of the Internet to get its product into the most hands.



Source: Forrester Research

cyber future

Making Web Site Interactivity Easier and Safer

Say you're surfing the Web, and you arrive at a super-cool spot like the Bath-Time Fun Foam Fish (http://redwood.northcoast.com/cgi-bin/fishtime), which tells you the time of day in the specific time zone you request. Are you overcome with a desire to create an interactive site of your own, one that would allow image maps, demographic hit counting, guest books, database search and posting, games, graphics, or audio generation? Well, to create each of these kinds of interactive sites, you need to produce a different CGI (Common Gateway Interface).

One potential problem with CGI scripts is server security breaches. But a new a server-side CGI language, named Eva, is designed specifically to prevent unauthorized actions. Eva is also traceable – scripts do not loop infinitely like current CGIs, so an endpoint can always be found. Developer Winner Technologies is also touting Eva's simplicity and ease-of-use. According to Winner, Eva can implement both simple and complex interaction on Web pages.

"Instead of creating new CGIs for specific uses," Winner says, "Eva provides the full functionality needed for most applications." Winner also says that since Eva is an interpreter, not a compiler, "Eva scripts may be prototyped rapidly."

Eva is being distributed under an exclusive license by Techware Corporation, a 12-year-old, Florida-based full-service multimedia provider. It develops Web sites, software, digital video recording and editing, and more. Dave Lampert, Eva's product manager, is supporting extensive Beta testing. "We'll go through four or five phases of Beta testing," he says, "involving 40 or 50 testers by the end of the last phase." Eva works on numerous platforms, including Windows 3.1, Windows NT, Windows 95, Unix, DOS, and Macintosh. For information on licensing and/or participating in the Beta program, go to http://www.techware.com/eva or call 800 347 3224.

–Barbara Bergeron

net followup

Net Phone: A Pawn in the Long-Distance Billing Wars?

In a petition filed last March with the FCC, a U.S. telephony trade association asked the government to bring providers of Internet telephone software under regulation as telecomm carriers (*The Net* June 96, p. 17). Reaction to the America's Carriers Telecommunications Association (ACTA) petition was spirited, and included the formation of an opposing group, the VON (Voice-on-the-Net) Coalition, whose major fear was that ACTA wanted to eliminate Internet phone services altogether. However, this fear may have been unfounded.

According to one corporate member of ACTA, the petition isn't aimed at the net at all. Instead, says Jeff Buckingham of CallAmerica, Inc., ACTA is using Internet Phone as a stalking-horse in an attempt to point out the inequity of the current pricing structure for long-distance services.

Under the rules set by state and federal legislators and regulatory agencies, long-distance carriers pay out almost half their revenue in the form of taxes and fees charged by local phone companies for "access" (i.e., connections to the local switching equipment).

Users of Internet phone software don't have to pay any such charges. Indeed, this is part of the reason why net phone long-distance calls cost less than one-fifth as much as calls placed through traditional phone carriers.

Buckingham's view makes more sense than the idea that ACTA wants to ban Internet phoning. And ACTA's approach is consistent with the precedents set by companies such as Carterphone and MCI in dealings with federal regulatory agencies.

Buckingham's assessment is also supported by recent actions taken by regional telephone companies. Telcos in several states have applied for permission to raise residential rates and reduce business rates in order to compete with new local-service companies.

In other words, competition is forcing established phone companies to revise their rates to reflect the actual costs of providing phone service.

ACTA's petition is unlikely to be approved in its current form, primarily because of the government's historical tendency to encourage competition. Despite the rejection of the petition, ACTA will have made its point about the unfairness of the subsidy structure and will be in a position to follow up with another, more direct, request for subsidy relief. Meanwhile, I-phone will be safe.

–Stephen Satchell and H.B.J. Clifford

soft line

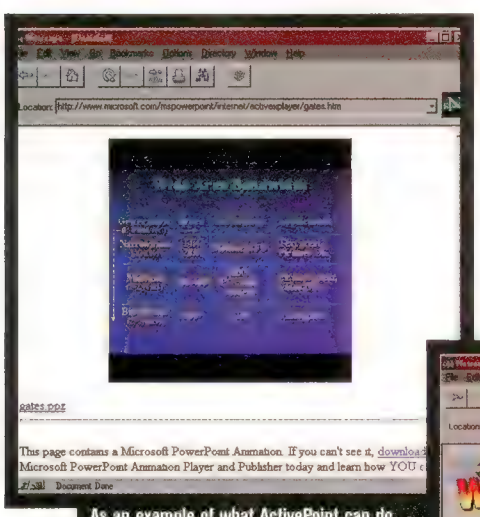
The Web's Presentation Boom

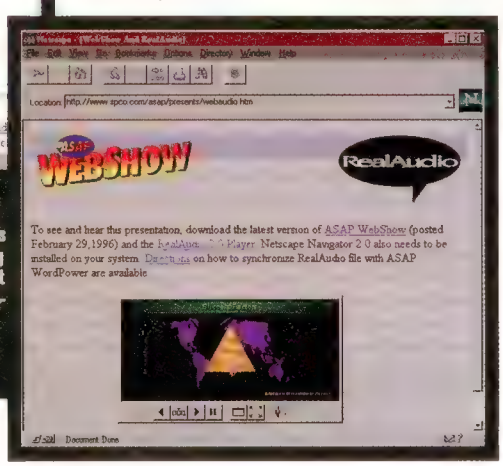
Presentation software is making itself felt on the Web in a big way, with four different companies offering plug-ins to view presentation files in a browser window. Most businesses have graduated from flip charts and overhead projectors to computer-generated presentations, using products like Microsoft's PowerPoint to create slide shows with bullet-pointed text flying in from the sides, pictures cartwheeling into place, and movie-like transitions where slides fade in and out. Ostensibly, the idea behind presentation software is to highlight the major points in a speech, but we all know that the more impressive the animations, the less the actual content matters. With these new plug-ins, businesses can put their presentations up on their Web sites, so clients and partners can view them remotely.

PowerPoint, by Microsoft, gets the largest amount of use by business because of the way it's been bundled in the Microsoft Office Suite. It's also helped by the fact that it's as easy to use as Microsoft Word. Microsoft has released a plug-in called ActivePoint for compressing and playing PowerPoint presentations on a Web page. The ActivePoint software is free to download from the Microsoft site (**http://www.microsoft.com**), and has two components: a publisher and a player. The publisher adds a "save as" feature in the PowerPoint menu, allowing users to save presentations in ActivePoint format. The player works with Internet Explorer and Navigator to play the presentation in the browser window.

ASAP, by Software Publishing Company (**http://www.spco.com**), is a very simple presentation tool designed with the philosophy that few choices mean ease of use. While it doesn't allow for the same kind of animations and multimedia that the other packages do, its graphics and text capability are just as good. ASAP WebShow is a plug-in for Navigator that displays ASAP presentation files right in a browser window. The files themselves are small, so extra compression isn't needed. WebShow can be downloaded from the Software Publishing Company site.

At a higher end of presentation production is Gold Disk's Astound software. Going far beyond PowerPoint, Astound has some incredible functionality for not only adding multimedia content to a presentation, but also for creating it. Of course, to use all of the advanced features in Astound, you'll need to have an expert skill set.





As an example of what ActivePoint can do, Microsoft put one of Bill Gates' presentations on its Web site. Above, you'll see what it looks like in the Navigator browser window. Clicking on the presentation will advance it to the next slide. Software Publishing Company has created the WebShow plug-in for its ASAP software. WebShow has a control bar (right) to advance and rewind the presentation.

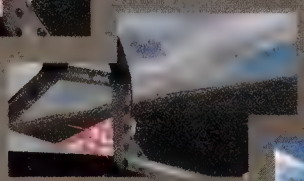
MovieStar: Video Viewer

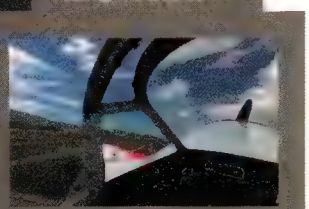
NETSCAPE NAVIGATOR PLUG-IN OF THE MONTH

This month's plug-in has long been anticipated in the computer world, especially among Macintosh aficionados. MovieStar is a viewer for streamed QuickTime movies.

With this plug-in, a QuickTime movie embedded in a Web page will play right in the browser window as soon as it starts to download. QuickTime is a technology created by Apple for editing and playing multimedia content on a computer. Most CD-ROMs that include full-motion video use this technology. Like Macromedia's **Shockwave plug-in** (http:// www-1.macromedia.com/Tools/Shockwave/Plugin/plugin.cgi), MovieStar will make it easier for multimedia developers to design content for the Web.

One caveat is that the streamed QuickTime movies it views have to be converted into a special compressed format, with software made by Intelligence at Large (of course). But MovieStar balances this out by also being a QuickTime VR viewer. This technology allows a user to navigate around a still photograph, examples of which can be found at the BMW site (http://www.bmwusa.com). The MovieStar plug-in is available for free download from http://www.beingthere.com.





Copy the pilot's view from the cockpit of the Gee Bee R2 via QuickTimeVR, as seen with the MovieStar plug-in at http://airspacemag.com/Reno/Reno_QTVR4.html. This single-engine racer will be competing at the Reno Air Races, September 12-15, 1996.

The complimentary plug-in for playing Astound files via Navigator is called Web Player, and is available for free download at **http://www.golddisk.com**. One drawback to using Astound over the Web is that there's no built-in compression scheme, so if someone builds a really big presentation, it's going to take a lot of download time.

Another high-end presentation tool comes from a company called RadMedia. Its product, called PowerMedia, is designed for users who need to do professional multimedia authoring for things like kiosks and training programs. Unlike most presentation programs, PowerMedia incorporates a high degree of interactivity. The entire product is designed to be Web-friendly, meaning that its dialog box for browsing files will look at Web server directories, allowing the user to copy graphics and other files from all over the Internet. PowerMedia comes with a viewer for its presentation files that can work on its own, or as a plug-in to Navigator. It can be downloaded from **http://www.radmedia.com**. While business communications are the intended use of these products, there's no reason why they couldn't also be used to spice up a Web site. For those who can't afford Director, a PowerPoint presentation can be made to look almost as slick as a Shockwave file.

–Wayne Cunningham

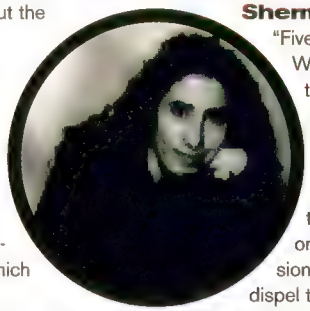
inter face

Making Real Places for Real People

Aliza Sherman is rapidly making a name for herself as someone who's making the Internet a lot more friendly to women – who are traditionally considered to comprise a minority of users. In September 1995, Sherman created FeMiNa (**http://www.femina.com/**), a Web search engine for women and girls, that she put online for one reason only: "To provide women with a comprehensive, searchable directory of links to female-friendly sites and information on the World Wide Web." Besides being the first and largest such site, it's remarkable for having a comprehensive database and powerful, intuitive search engine – created by Mark Lilback of Internet Interstate (**http://www.intr.net/**). A user survey helps ensure that FeMiNa continues to serve its audience.

Sherman has her own personal home page, Cybergrrl (**http://www.cybergrrl.com/**), which she debuted in January 1995 and continues to maintain. It's a guide to fun, interesting, and useful sites. She says it's meant to provide a friendly learning environment for women online. She's also the creator and maintainer of Webgrrls Unite (**http://www.webgrrls.com**), which highlights what women are doing on the Web. It offers links to women's home pages and information about the international networking group.

We caught up with this net pioneer via e-mail from her home in New York City.



The Net: *How did you get involved with the Internet?*

Aliza Sherman: I bought my first computer in the late 1980s. It was an Amstrad 1640 with dual floppy (no hard drive). It had a 1,200 bps modem and primitive communications software. I began dialing into local BBSs, which led me to ECHO [find out more about it at **http://www.echonyc.com/**], the Internet, America Online, Women's Wire, and finally, the Web.

The Net: *What led you to create the FeMiNa site? How did and do you go about collecting the resources?*

Sherman: I love the search engines, and have loved Yahoo [**http://www.yahoo.com/**] since I first got onto the Web in 1994. But one thing I found was that a search for "woman" or "girl" pulled up more x-rated stuff than anything else. Since the search engines were lacking and no one else was doing anything, I got my tech-guy, Mark, to set up a searchable database, and started inputting the hundreds of links I had already accumulated. We now have thousands of links – all woman-friendly – and now I have a few part-time interns to help me input them, as well as review them. The site is growing by leaps and bounds, and we are getting inquiries to advertise now, which is really fabulous.

We have been a heart-felt grassroots effort, and are now entering into a partnership with Lycos [**http://www.lycos.com/**] to help propel FeMiNa into the next realm, where it can offer better services to women searching the Web.

The Net: *Tell us about your other endeavors online.*

Sherman: My personal home page is Cybergrrl Webstation. Cybergrrl is one of the first icons for the new media industry; she represents a friendly and intelligent place in cyberspace. She is also the champion of women and girls online.

I've also created Cybergrrl Internet Media, an online media-content studio. Its motto: "We build places for people in cyberspace!"

In April 1995, I founded an organization called Webgrrls International. Initially, the idea behind it was to bring together other women who had Web pages, too. We quickly grew from six women at the first meeting to more than 200 at the November meeting. Now in New York City, we meet twice a month to accommodate the demand, and we have more than 2,000 members and 45 chapters worldwide. All of the chapters provide a forum for women to network, exchange job and business leads, mentor and intern, teach and learn about new media.

The Net: *What do you think are the biggest obstacles to women getting online? What can be done about them?*

Sherman: I call them my "Five Myths that Keep Women Offline": It's too hard; it's too expensive; it's too dangerous; there is nothing there for me personally; and there is nothing online for me professionally. Once you can dispel the myths (I can do it in less than two minutes), women's eyes light up and they suddenly realize how much sense it makes for them to be connected to the Internet – to the world, really – and how being online is all about harnessing power – the power of information and knowledge and international communication.

The Net: *How "woman-friendly" is the net currently? What efforts are under way to make it more so?*

Sherman: Cybergrrl is out to make the net people-friendly – a warm, intelligent, useful, and fun place to be. I tell everyone that the net is like the real world – like a big city. It is only as safe as you are smart. Using common sense and "netiquette" goes a long way.

The Net: *What's the best thing that's happened to you as a result of being online?*

Sherman: Being able to create and write and self-publish daily, and knowing that thousands of people see what I create each day.

The Net: *What advice would you give a woman who's seeking to create her own Web site?*

Sherman: Pick up Laura LeMay's book, *Teach Yourself Web Publishing in a Week with HTML* (Sams Publishing). She has a great wit and a clear way of explaining things, and her book is really considered the "Bible" among Web designers. And check out the Cybergrrl area on the new Lifetime TV Web site [**http://www.lifetimetv.com/connections/**]. There you'll find Cybergrrl's step-by-step basic guide to getting your Web page started. If you go to the Webgrrls site at [**http://www.webgrrls.com/directory.html**], you will find links to women's personal pages, which are always inspiring. And most of all, take charge and create!

The Net: *What's next for you?*

Sherman: Coming soon is GirlZone [**http://www.girlzone.com**], designed for the many stages of a girl's life. This site will be one of the projects maintained by my online producer, Teresa Hsu, who is a student at NYU's Interactive Telecommunications Program, as well as Ruel Espejo, Sonya Allin, and AnnMarie Pennola.

I'm also working on WomenZone [**http://www.womenzone.com**], for the many faces of a woman, especially the very busy woman. This will be a joint venture between Cybergrrl Internet Media and the Hart Agency in Dallas. I'm also working closely with Amy Ormond, who has the wonderful site WomenSpace [**http://www.womenspace.com**].

I believe in creating valuable, useful and entertaining sites for women and girls and for people in general.

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power moves

Becoming An Internet Player: Quarterdeck's Evolution

Quarterdeck (**http://www.qdeck.com/**) burst forth on the Internet software scene last year with an impressive line of products. But Quarterdeck isn't another of those instant success stories, like, say, a Netscape that catapulted to success in a matter of months.

Quarterdeck has reinvented itself in the last year to take advantage of the vast market potential of the Internet. Innovative ideas are making it a success.

It's emerged from the relative anonymity of being a mere utility products company. Just three years ago, it was a one-product company, known among PC users for its memory management utility, QEMM. This one-product focus left it extremely vulnerable to competition and the vagaries of the marketplace.

In fact, the second quarter of 1994 proved a rough time for Quarterdeck, which resulted in its board instituting a major shakedown. Gaston Bastiaens was hired as CEO, with the mission of turning around the beleaguered company. Gaston decided Quarterdeck should focus on producing software for the Internet, because, he says, "at the end of 1994, it was no secret [to us that] the Internet would be a big market." Maybe not to him, but other major software companies, such as Microsoft, took a bit longer to jump into that particular arena.

Quarterdeck was well-positioned to enter the Internet software development market. Long before net hype, way back in 1985, its engineers had developed DeskView, a Windows-like graphical user interface for DOS that incorporated TCP/IP, making it Internet-friendly. The success of Microsoft's Windows eclipsed the popularity and functionality of DeskView, though, which kept Quarterdeck in the shadows. But the technical know-how its engineers developed proved beneficial when Quarterdeck became the first company to license the Mosaic browser technology. When Quarterdeck launched its Web browser in March of 95, the Internet only had an estimated 71,000 domains, compared with more than 240,000 today, according to Network Wizards (**http://www.nw.com**).

But Quarterdeck learned its lesson from the QEMM days, and wasn't interested in basing its success on another single product. Last year marked a string of new product releases, acquisitions, and partnerships. Quarterdeck's software now ranges from basic Web browser/server products to very innovative tools like WebCompass, a personal search agent. The investment in new products has proven to be a wise move, as competition in the Web browser arena has gotten to such a ridiculous level that Microsoft is giving away its Internet Explorer. And how many Navigator users have actually paid for their browser? The Web server market is almost as bad, with Microsoft offering its Internet Information Server as a free download (the catch is that you have to be running Windows NT).

Last year, Quarterdeck bought Starnine, a fairly wise move considering that company's main product is one of the best, and one of the only, Web servers for the Macintosh. That's one server field with limited competition.

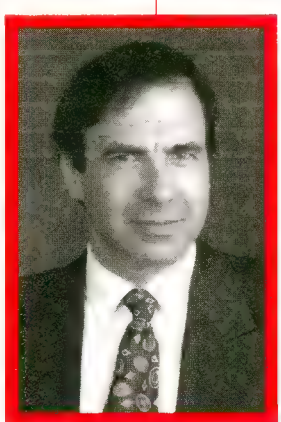
Another lesson Quarterdeck has learned well is the hyper-active nature of development on the Internet. In the old days, a software company might spend a year developing a product and getting it to market, if it was quick, but the Internet calls for more speed. "The law of success is time to market," say Gaston. Quarterdeck developed and released its WebTalk product, which allows voice communication over the Internet, in four months. It was able to attain this kind of speed by partnering with other companies that have already developed technology crucial to the final product.

Quarterdeck, version 3.0, is trying to be much more than a software company, however. It's working at coupling its products with various Internet-related services. For example, one of its most notable recent forays was providing technology and support for the House of Blues' New Orleans Jazz and Heritage Foundation Jazzfest Web site (**http://hob.com**). Quarterdeck altered the look of its browser to incorporate appropriate artwork for the festival, and set up chat servers accessible via its GlobalChat client software to communicate with people at the event. The success of this new direction will depend on mainstream America's acceptance of the Web as an entertainment medium, which may still be a few years away.

–Wayne Cunningham

Turnaround Artist

According to his Masters degree from the University of Louvain in Belgium, Gaston Bastiaens, president and CEO of Quarterdeck, is an engineer. During his tenure at Philips Electronics, he took on various senior management positions and helped develop the CD audio standard. Next, Bastiaens was vice president and general manager of Apple Computer's Personal Electronics Division. From there, he went on to head Quarterdeck.



Quarterdeck timeline

August 1985
DeskView, a graphical user interface for DOS that incorporated TCP/IP, is released

December 1986
QEMM, a PC memory management utility, is launched

October 1994
A bad second quarter results in a corporate shakeup; Gaston Bastiaens, formerly of Philips and Apple Computers, is hired as CEO

April 1995
WebAuthor, an easy-to-use editor creator, is released

June 1995
QMosaic, a Web browser, is released
InternetSuite, a means of installing and administering a full suite of Internet applications, is launched

November 1995
WebCompass, a personal search agent, launches
WebTalk, which allows voice communications over the Internet, is released

Bizarre Usenet Phenomena

report filed by Tjames Madison, proprietor of alt.usenet.tjames

Fans of Steve's Hair Awarded Their Own Newsgroup

Usenet has long transformed otherwise anonymous Americans into net celebrities by awarding these people their own newsgroups. However, a new trend may be developing: awarding a newsgroup to someone's physical characteristics. "Come, learn about the wonders of Steve's hair," writes [illegible] in a posting to alt.fan.steves.hair. "Tired of a large, random, spam-group? Well, get in on the ground floor of a small, random, spam-group. You can talk about pretty much anything here as well, the only rule being that you have to somehow connect it to the eternal underlying theme of Steve's hair." The aptly named [illegible] provides an example message to get things moving: "I used to think that Macs suck and PC-compatibles are the way to go, but now with the Common Hardware Reference Platform on the horizon and the growth of distributed computing, I'm getting less religious about what machine I'm using, and more into what I'm doing with it. By the way, Steve's hair is amazing."

Recommendation: Contact "Steve," extract his hair secrets.

Alcohol Consumption May Hold Key to World Peace

Discussion on alt.beer generally delves into homebrewing methods and favorite regional brands. It is therefore strange when a brash political posting rears its ugly head. To wit, the shocking message: "If this country is going to unite, we must start it at a grassroots level – beer," writes mrysanek@chat.carleton.ca. "I believe that if we all drank the same beer, we would all understand each other, and come into harmony; hence, no political troubles."

Another beer enthusiast seconded the radical cry: "Other beers must be allowed to survive, no matter how much we hate them. Like the KKK, we must protect the rights of the Budweisers of this world in order to preserve our own. Perhaps the ACLU can help on this one."

Recommendation: As BUP strongly disapproves of all grassroots political organizations (particularly those that don't "play ball"), the alt.beer newsgroup should be dismantled at once. Let's look into this ACLU thing, too.

The Tide Turns Against Jennifer Aniston

A new controversy is brewing in the ever-tumultuous alt.fan.jen-aniston newsgroup. A recent spate of postings accuses the famously haired actress of promoting "indecent values" in the popular TV series "Friends."

"I Am Very Concerned About Your Values," writes the mysterious Negativeman. "Have You Ever Thought About Morality? Have You Engaged In Premarital Sexual Activities? Are You A Prostitute? These Are All Very Important Questions And I'm Very Concerned That The Answer To Each One Might Be 'Yes.' Why Don't You Seek God And Join The Struggle To Stop Filth Like "Friends" And "Caroline In The City" Which Promote Un-Christian Views About The Role Of Women In Good Christian Society?"

"I am Very Concerned about your grammar," replied bowling@osuunx.ucc.okstate.edu. "I have thought a great deal about morality, I engage in premarital sexual activities, and I am not a prostitute. Feel better?"

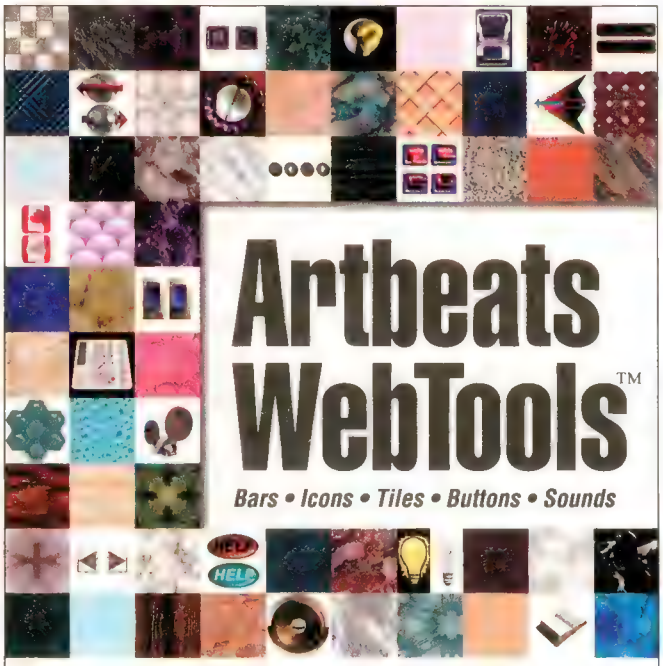
Recommendation: The newsgroup alt.fan.jen-aniston exists for the express purpose of honoring Jennifer Aniston. All superfluous activity must be suspended forthwith.

hard line

A Color Printer Made For the Web

Printing directly from the Web can be a discouraging experience – black-and-white laser output just can't do high-res color images justice. Enter the FotoFUN! Digital Color Photo Printer from Fargo **(http://www.fargo.com/fotofun.html)**. This dye-sub, thermal-transfer dynamo offers photographic quality output for an unprecedented price of $499. While the printer's maximum output area is limited to four by six inches (hence the low cost), the little box is perfect for lifting photo and graphics off of the Internet, where images tend to be small anyway. And don't forget: Just because images on the Web often appear pixelated, it doesn't mean they weren't saved at high resolutions. Great quality for a great price.

FotoFUN! is perfect for printing continuous tone images – that is, photographs – directly from the Web. To the left is the image from the Web, to the right is the image from the printer.



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net desk

News Flashes...

Mind Control

A new technology called MindDrive is being used by Miramax (**http://www.miramax.com**) to produce "films" on the Internet that consumers can control with their minds. No, April 1 was months ago. MindDrive, developed by a Northern California company called The Other 90% Technologies, employs a ring that fits on your finger and senses the bio-electrical patterns generated by your thoughts. Over the last seven years, The Other 90% Technologies has asked control groups to think specific thoughts, and recorded their bio-electrical patterns in order to come up with a recognizable standard. MindDrive software has stored these patterns, and will compare them to the patterns generated by a user. Miramax's initial plans call for releasing a six- to 10-minute original "film" in MindDrive format on the Internet this fall. A viewer will be able to decide the outcome of key points in the film.

DIY: Guerrilla Marketing

As News Editor of *The Net*, I get a constant stream of press releases via fax, snail mail, and e-mail. While checking my e-mail one day, I deleted a press release that didn't interest me, then opened the next one and was surprised to see the same addresses in the header. The first line of the message read: "Thought we might take an opportunity to 'borrow' this mail list and tell you about Thora-Zine Mag." I was impressed, as I realized the potential of Internet users grabbing extensive mailing lists from the likes of Microsoft and IBM to promote their own sites and zines. *The Net*'s Stickin' it to the Man award this month goes to Thora-Zine Mag **(http://www.eden.com/thora-zine)**.

Sandman Redux?

Fans of Neil Gaiman's Sandman **(http://www.av.qnet.com/~raven/)** who have been feeling a little lost since he gave up this cult-favorite comic book can find some succor on the Web now. Dave McKean, the artist for Sandman, is now using his illustrative genius to enhance a Web site. Club SALSA **(http://www.salsa.walldata.com/)**, Wall Data Inc.'s site to promote and distribute its SALSA software, is decorated throughout with McKean's artwork. SALSA is an easy-to-use database/ tracking software package, which some visitors might find interesting, but Sandman fans will be drawn to the bi-weekly drama McKean has created.

Java Breaches Security

Java and JavaScript – actually unrelated programming languages – can truly enhance the Web-browsing experience, but they can also create major security risks. Both allow platform-independent mini-applications – known as "applets" – to be downloaded from a Web site. Hackers have found ways to exploit these applets to gather information from a user's computer. John Robert LoVerso (**http://www.osf.org/~loverso/**) has managed to leverage JavaScript to do such things as track which sites a user has been to, read directory listings from a user's computer, and read files from a user's computer, all of which he has logged on his Web site. These hacks work with Navigator 2.0 and 2.01, but Netscape's latest offering, the Navigator Atlas preview (**http://home.netscape.com/**), is supposed to take care of these problems. Additionally, switches under the options menu for Navigator 2.01 allow the user to disable Java and JavaScript.

Baseball Fans Get Web Satisfaction

Instant Sports (**http://www.instantsports.com/**) has unveiled a Java applet on its Web site called Instant Ballpark, which shows an animated version of a baseball game as it happens. Tiny virtual players run around the field, as the path of the ball is tracked with tracer bullets. A scoreboard sits at the top of the screen, and a scrolling field on the left shows the progress of other games as they happen. Instant Sports specializes in publishing up-to-the-minute baseball statistics, so if your passions are baseball and computers, this should be a hit.

–Wayne Cunningham

net dispatch

Droppin' In: Dispatches from the Aether

Cyclops' Vantage

Jason Sneed

If every artistic visionary had his or her own TV station, the airwaves would be full, but imagine how interesting the tube would become. Now, innovations in Internet video – spearheaded by Cornell University's super-techs, who have drummed up a videoconferencing program called CU-SeeMe (find a great guide to using this technology at http://baby.indstate.edu/msattler/sci-tech/comp/CU-SeeMe/) – create the potential for individuals to circumvent traditional channels in broadcast media and create their own channels.

One group of artists doing this right now is San Francisco-based Anon Salon. An outgrowth of pARTy Science and the Climate Theater, Anon Salon is a monthly digital arts party that merges the traditional and digital art communities. This month's dispatch into Internet subculture took me not far from my doorstep in San Francisco to investigate just what kind of channels Anon Salon is creating.

Monthly digital arts parties by the Anon Salon are broadcast live to the net using CU-SeeMe technology.

Responding to Anon Salon's flyer announcing a "Fool Proof Party," I emerged from the underground BART station at Powell, walked deep into the South of Market district, and approached the address on Folsom Street. There, a half-dozen chicken-suited partygoers were crossing the road and filing through a doorway on one side of the street. We were headed in the same direction – the entrance of the Anon Salon.

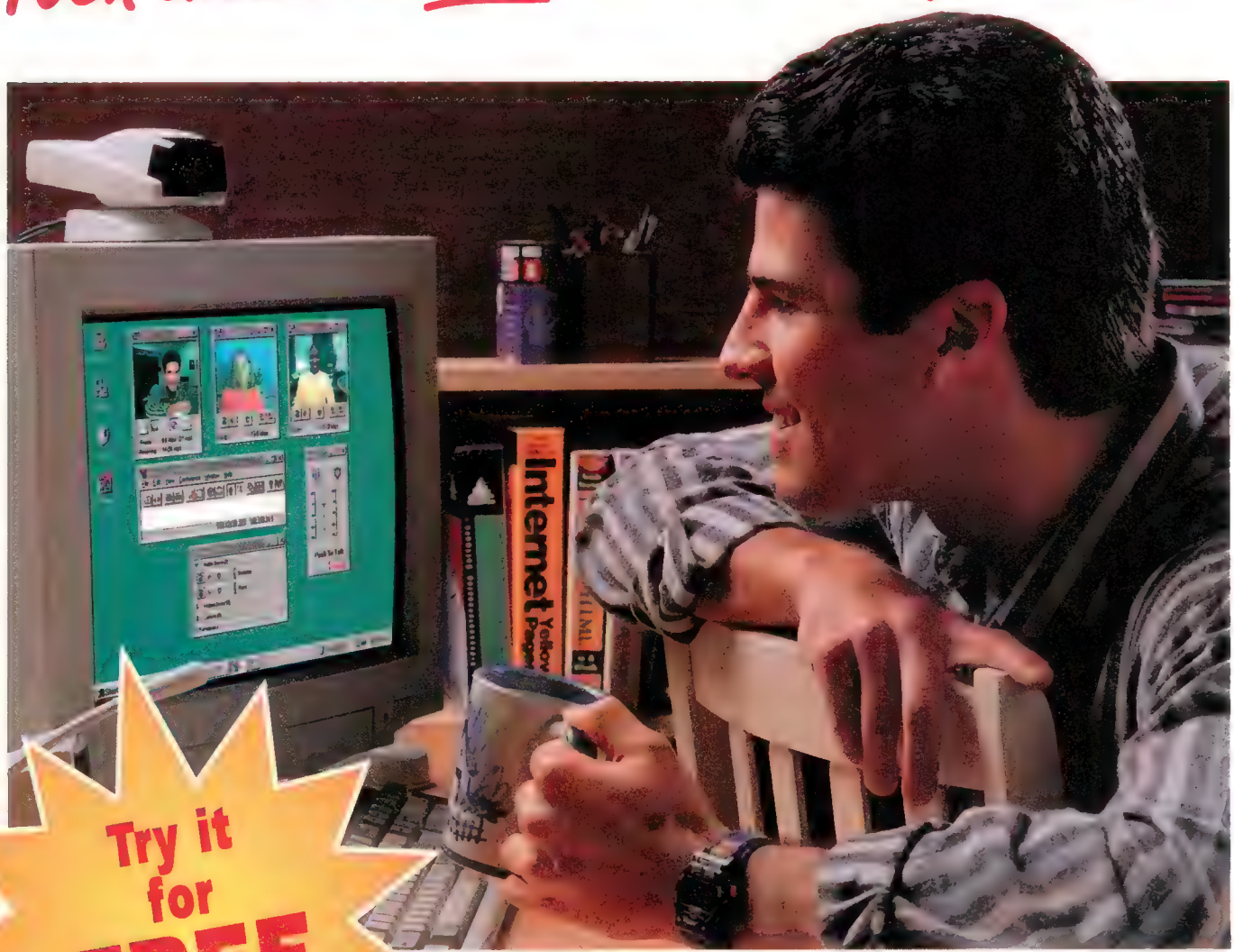
Ominous sounds of house music boomed within, filling the floor with techno-artistes gettin' the groove on. Meanwhile, CU-SeeMe broadcasts were taking place, letting the folks at Anon Salon (http://livedv.com/Anon/index.html) convey the excitement of their event to many different points throughout the world. At least several people were on hand at any given time, maxing on the couch, sitting cross-legged on the floor, or jockeying for camera space. Directing the broadcasts was energetic party interactivist Dianna Rawleigh. I overheard her exclaiming: "A minute ago, we were hooked on with a Biker's Bar and the USF Robotics Lab."

Dianna gave me a whirlwind tour of other CU-SeeMe reflector sites (those that, like the Anon Salon site, were broadcasting live to the net). I began to realize that the first wave of broadcasts that the new technology is spawning is sexual in nature. This appears to be an American trend in the early acceptance of media technologies. There's also a burgeoning cafe broadcasting scene. "The Cafe scene is more public, more fun," says Dianna.

CU-SeeMe technology still isn't commonly used. But, as the scope of content and the number of hook-ups expand, the technical infrastructure will also develop. And then we will all need to ask: "When the camera is on, what will we do with ourselves?"

Some call it Internet Videoconferencing...

Ken likes to See "What's Happening."



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To see (and hear) what's happening with people around the world, get Enhanced CU-SeeMe, White Pine's desktop internet videoconferencing software. For **under $100** you can chat and see person-to-person, in small groups, or with hundreds in a broadcast. All in full color, with a whiteboard for document collaboration. Use Windows, Macintosh or both. It runs over a 28.8 modem (14.4 for audio only) via the internet, your voice phone line or your company's TCP/IP network. You don't even need a camera to try it, so join more than a half a million users (from the President to the Rolling Stones) and see what they're saying about the new **Enhanced CU-SeeMe**.

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Adding Value to Web Ads

Carla Sinclair

A lot of net users hate ads on the Web. They say it ruining the net. But I like the idea of net ads, because of the potential for interaction and customization — having ads delivered to me based on my personal likes and dislikes. Unfortunately, most advertisers are clueless. I cringe whenever I see some stodgy icon from companies like State Farm Insurance (**http://www.statefarm.com**) interrupting the flow of a Web site. You've seen them — the ugly corporate banners perched at the top or bottom of an otherwise hip Web page. They've invaded sites like Yahoo! (**http://www.yahoo.com/**), WebCrawler (**http://www.webcrawler.com/**), HotWired (**http://www.hotwired.com/**), c|net (**http://www.cnet.com/**), and Alta Vista (**http://www.altavista.digital.com**), just to name a handful. Do these geeks actually expect me to go out of my way by clicking on a beckoning box, or typing in a URL, only to get trapped inside a dead-end, self-referential, 50-page Web ad? Why can't these advertisers, who spend millions of dollars to keep viewers planted in front of their TV sets, grasp the concept of the World Wide Web? As Aliza "Cybergrrl" Sherman (**http://www.cybergrrl.com/**) puts it, "The most important thing when creating something on the Internet is to add *value* to the Web. Don't just get up there and put up information about yourself. Give something back to the community at large."

Carla Sinclair (carla@well.com) is the author of *Net Chick*, co-editor of *Happy Mutant Handbook*, and kahuna of her own zine, *bOING bOING*. Visit her Clubhouse! at http://www.cyborganic.com/People/carla.

Value — a message board, newsworthy pieces unrelated to the advertised product, updated info on nonprofit groups, or a list of hot links, for example — is what is missing from most Web ads. When I accidentally clicked on Saturn's logo (**http://www.saturnmedia.com**), I was propelled into its megalomaniacal world, where nothing but Saturn exists. No extraneous information, no page for visitors to communicate with each other, no games or other ways to interact, and most importantly, *no way to get out*. I tried to click my way to another site, sometimes moving five pages forward before I found myself right back where I started. The Saturn site was like the river in *The Land of the Lost*, from which you can never escape. I was trapped in a virtual brochure, and I wasn't having fun.

This is fine if you're already in the market for a Saturn. But if Saturn wants to entice people who aren't already dead-set on buying its cars, it better wake up. The Web isn't the same as TV and radio, where the audience is passive (although remote controls do give us some bullying power), and the advertiser is the intruder. Couch potatoes will unwittingly watch the same TV ad five or more times in one night. But with the Web, the audience is the intruder, while the online ad passively sits around, hoping for some action.

With TV and radio, the audience is passive, the advertiser the intruder. With the Web, the audience is the intruder; the online ad sits patiently, hoping for some action.

Obviously (or so I thought), the only way advertisers are going to get Web cruisers to revisit a Web site is by titillating them with something more than just product. They need to think of their site as a virtual community rather than as an ad. It's O.K. if this community is clustered around a product or service, so long as the community is dynamic and connects people to other people. Just hook us with something, for God's sake.

I don't mean to pick solely on Saturn. Yes, its pages are claustrophobic, but no more so than those of IBM (**http://www.ibm.com**) or Hewlett-Packard (**http://www.hp.com**). Pontiac (**http://www.pontiac.com**) tries to entice you with an episodic "road trip" story, which almost works until you realize that every other sentence refers to its product. *Get me outta here!*

Not every advertiser is oblivious to the ways of the Web. The Body Shop (**http://www.the-body-shop.com/index.html**) engaged me for more than an hour by informing me about endangered species, nuclear testing in the South Pacific (with online protest forms), women's issues, and how to get a hold of its fruity-tooty bath products. Levi's (**http://www.levi.com**) also captivated me with its Spoken Word arena, where I read an interview with humorous performance artist Beth Lisick, then listened to her rant about girdles, the net, and life on the highway. When I was finished, Levi's courteously let me out of its digital domain with a long list of links grouped in categories such as "Poetry," "Digital Art," and "Rave." Frankly, I don't care whether these advertisers make it or not. Until they can figure out the benefits and limitations of the Web, I'm happy roaming through personal Web pages. But if these product pushers are going to obstruct my Web view with some imploring, linkable logo, by all means, make it worth my while.

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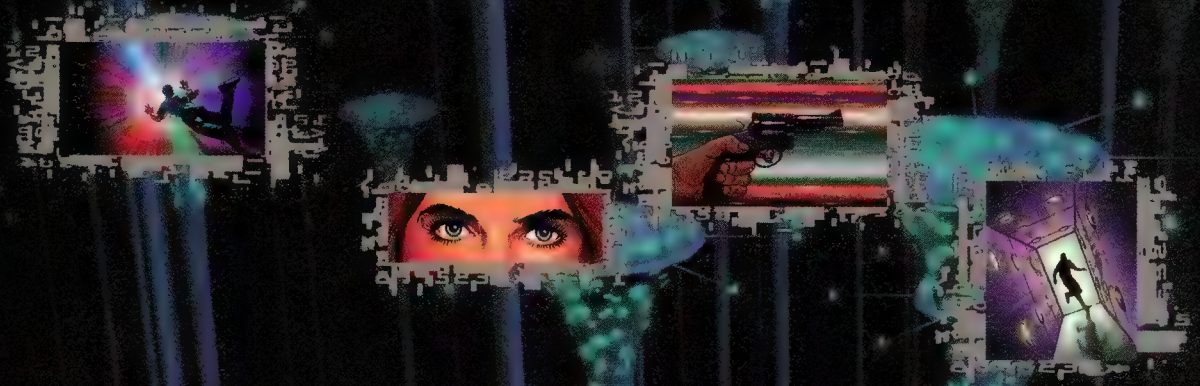

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Wizards and Magic Cookies

David Sobel

There was a time when cable television made some people nervous. Back in the early 1970s, there was a lot of debate about running a new, high-capacity wire into the home. I remember talk of Big Brother, and how no clear-thinking person would want to invite this new technology into his or her living room. The fear was that this new connectivity would not only bring in television programming, but might also be used clandestinely to transmit information from our homes to some nefarious outside entity.

The fears about cable never became reality. Aside from information concerning the pay-per-view preferences of subscribers, the operators of cable systems are not able to collect much data from the consumer end of their coaxial pipes. The information flows in one direction, and cable television can be enjoyed with almost as much anonymity as can the broadcast variety. Big Brother did not enter our homes through our television screens.

Computers and modems raise many of the same concerns that were once voiced about cable. But these concerns are far more realistic. The new communications technology is, in fact, interactive, meaning that information is now flowing in two directions. And with interactivity comes the potential for abuse; for the first time, we are inviting a long and unknown arm to reach into our homes. In the relatively young life of the online medium, there have already been a couple of instances when the unforeseen consequences of interactivity became an issue. A few years ago, there was a brief scare among Prodigy users when it was discovered that the service's software was creating a file that contained data on the structure of the user's hard drive. This gave rise to a suspicion that personal information stored on the user's machine was being secretly uploaded to the online service. Prodigy quickly reassured its subscribers and put these fears to rest, but it made a lot of people think about the potential for electronic snooping.

Last year, Microsoft's Windows 95 "registration wizard" raised some eyebrows with its ability to automatically scan a user's hard drive, dial up Microsoft headquarters, and transmit information to the company about the files on the user's computer, including the titles and versions of software applications. Consumer advocate Ralph Nader wrote a letter of protest to President Clinton (**http://www.essential.org/listproc/tap-info/0168.html**), charging that the feature "is an intrusive measure that uses technology to erode customer privacy." Nader requested that the Administration "take steps to discourage its use." In response to the controversy, Microsoft offered a detailed online description of the feature (**http://www.microsoft.com/windows/pr/regwiz.htm**), which assured users that "the (automatic registration) process is entirely voluntary."

The most recent entry in the "potentially scary interactive features" category is the Netscape "cookie." This is a file that gets written to the user's hard drive during visits to cookie-compatible Web sites (the Windows version of Netscape Navigator creates a file called "cookies.txt" and the Macintosh version creates "Magic Cookie"). The cookie allows a particular site to track the activities of a user by recording details of that user's previous visits to the site. The feature can be used, for instance, to display only advertisements that the user has not seen before, or to customize the presentation of information depending upon the user's previous browsing habits at the site.

Whereas cable television can be enjoyed with almost complete anonymity, the same is not true for Web surfers and online service subscribers. With online information flowin in two directions, there is an unforeseen potential for abuse.

Based on my own cookie-reading, it seems to me that a relatively small number of sites are making use of the feature. But usage is likely to increase, and we can only hope that users will become better informed about this technology and its potential uses. Netscape has published a technical paper titled "Persistent Client State HTTP Cookies" (**http://home.netscape.com/newsref/std/ cookie_spec.html**), but it doesn't address the policy issues that are starting to arise — like whether users really want some strange Web site messing around with their hard drives.

The key here is that interactivity should be approached cautiously. The next time you fire up your modem to reach out and touch someone, remember that they might just be reaching back and touching you.

David Sobel (sobel@epic.org) is legal counsel to the Electronic Privacy Information Center in Washington, DC. He is co-counsel for the plaintiffs in the legal challenge to the CDA.

When you host your Web Page with the other guys,

Here's what 'they' give you...

(basic html)

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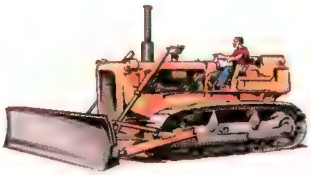
Emailable Forms

Animation



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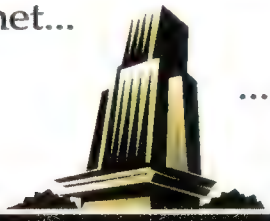

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True Confessions

Drue Miller

Drue Miller (drue@vivid.com) thinks she might have been Dear Abby in previous life.

Forgive me, Web surfers, for I have sinned... Some people just invite commentary from random strangers. Apparently I'm one of them. Since I started this column with *The Net*, I've gotten a few letters from readers. Mostly really nice — nothing even remotely sinister. But some of them have taken a rather personal turn. Like the gay man who hadn't come out to his family and wanted to know if I'd told my parents about my sexuality. Or the high school student who was labeled a "computer freak" and felt surrounded by idiots who wouldn't give him the time of day, much less try to understand him. He just wanted to talk to somebody. You and most everybody else out here, I thought. Sure, the net is a haven for misfits. But it's also an oasis for people who simply haven't yet found their tribe. And the truth is, some of us are a lot more likely to find each other online than in the physical world.

What is it about the net that encourages people to write to random strangers — reveal themselves, even, sometimes more deeply than to their closest friends? Probably the same force that compels people to put up Web sites full of personal essays and private thoughts.It's as if the Web feed some deeply ingrained need we have to reveal ourselves in intimate detail. For many it's one giant anonymous confessional (**http://anther.learning.cs.cmu.edu/priest.html**), when transgression is a form of entertainment.

Yet for others, it's a chance to purge the psyche, correct bad behaviors (**http://www.az.com/~blainn/dv/index.html**), lay rest to old ghosts (**http://www.organic.com/Staff/ogd/friends/angela/**) and lost loves (**http://www.links.net/vita/swat/chandra/**), eulogize loved ones (**http://serverstudent.furman.edu/users/k/ khuntley/dad.html**), and the like.

The Web feeds some deeply imagined need we have to reveal ourselves in intimate detail.

One woman put up a surprisingly intimate account on her site of separating from her spouse so that she could explore another relationship. She named names, gave details, and even linked to the other person's site — sort of a voyeuristic follow-along for her audience. But all of this was chronicled with extreme candor and sensitivity — nothing sordid or sensationalistic about it. And her story was fascinating.

Another site (**http://www.freedonia.com/~carl/**) contains an encapsulated personal history of the owner — including the vehicle accident that claimed his girlfriend's life. I'm not a weepy sort, but I got choked up the first time I read these pages — not just over his story, but also over his fearlessness in telling it. I don't know if I could open myself up to the world that much. And these are just Web sites. For years, countless details have been posted in newsgroups — painful recollections of abuse, trauma, grief: the entire spectacle of human experience, all up there in ASCII for the (wired) world to see. Why do we share stories online? What is it we're looking for — assistance? assurance? absolution? Think about it. If TV is a substitute babysitter, then the net is an ersatz priest, therapist, best friend, and worst critic. It could be the biggest audience you'll ever face.

There are plenty of like minds out here — brainy, creative, disaffected, disenchanted, etc. It's one of the most diverse communities in the world, offering a broad range of perspectives. There are no censors (yet), other than the self-determined community standards (which usually keep the self-proclaimed net.cops in check). And it's one of the few vehicles we have for personal publishing on a global scale. The net has long been the onscreen equivalent of sitting around the campfire drinking beer with your buddies. Other people wander by and join you, your friends disappear into the woods for awhile, and somebody throws another log on the fire and starts another yarn. At the same time, it's also the world's largest and longest on-going group therapy session, where souls are bared and broiled with unflinching regularity. Some people charge that the Web is little more than a vanity press. Really, who wants to read about your thesis or see pictures of your cat or find out what music you listen to?

Fact is, a lot of people do. (Although the audience is hardly captive. We can pretty much come and go as you please.) When you build a personal site, you're putting yourself out there into the data stream, part of a collective act of revelation (**http://www.awaken.org**), and it makes the online world a richer, more human place. Not surprisingly, some people choose to reveal more than others (**http://www.glamazon.com/**). But, of course, only you can set your own boundaries. The moral is: despite all these glitzy corporate sites and gee-whiz technologies, the soul of the net is in storytelling. Let's keep it that way.

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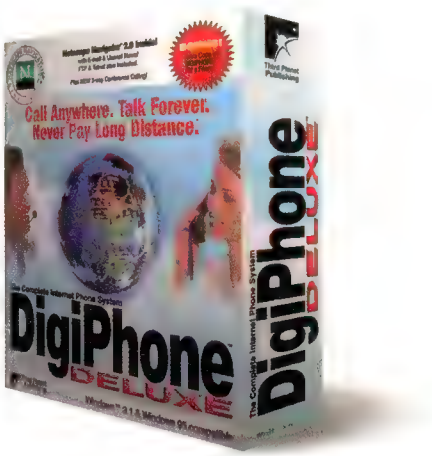

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Service with a :-)

Stevan Alburty

I am becoming more and more like my father every day, which gives me just about 30 years before the sight of my legs in Bermuda shorts will also inspire panic in a mall.

The latest manifestation of this transformation is my frequent observation that the taste, durability, or value of something appears to have declined in recent years. (Just in case this habit should get out of hand, my living will specifically authorizes euthanasia should I ever utter the phrase "In *my* day...")

As I grow older, it seems to me that the general standards of good corporate customer service are inferior to what they were (mumble mumble mumble.) Every time I have to navigate the shoals and tributaries of a company's interactive voice response system, I feel as if I'm working my way upstream looking for Marlon Brando. Online services and local ISPs (Internet Service Providers) seem to go out of their way to avoid actually speaking to customers. The concept of direct, physical contact seems to be repellent to them, a trait they share, I might add, with many of the people I date. America Online's 800-number support line, for example, will only let you talk to a human being if you are having trouble connecting or have forgotten your password. All other callers are told by a pleasant yet resolute recorded voice to go away and seek help online, which, if you're having difficulties online, is known in the binary world as Catch 00010110.

Helping users in some sort of personal way to actually learn how to *use* America Online seems to be frowned upon, although I notice that my jar of pasta sauce invites me, rather cheerily, to be sure and call its maker, toll-free, if I have any questions. It occurs to me that I might have far more questions on how to use an online service than I would about how to use a jar of tomato sauce, but that is a hair I will leave others to split.

Helping users in some sort of personal way to actually learn how to *use* their service seems to be frowned upon by Internet Service Providers.

Pipeline, a national Internet Service Provider, forces users to pay long-distance to call its support number in Reston, VA. At peak hours, its switchboard resembles the George Washington Parkway at rush hour, with wait times exceeding 30 minutes. Many users who signed up for Pipeline's free trial last December and canceled within the 14 days discovered that Pipeline continued to charge their credit card for months. (The Pipeline billing department, in a flash of linguistic whimsy, has been renamed "The ProActive Department," which suggests that billing canceled accounts is less an error than a mission.)

Panix, my local ISP, doesn't even answer its phone in the evenings. I have dialed its number at night on multiple occasions with one support crisis or another, and each time I have gotten an answering machine. I then noticed it did not list its street address on its Web site. Not that it really matters; it's not like I want to take Panix cookies or something, but the mystery began to gnaw at me. For all I know, Panix could be in the closet of somebody's apartment, the backroom of a dry cleaner ,or the men's room at Grand Central Station.

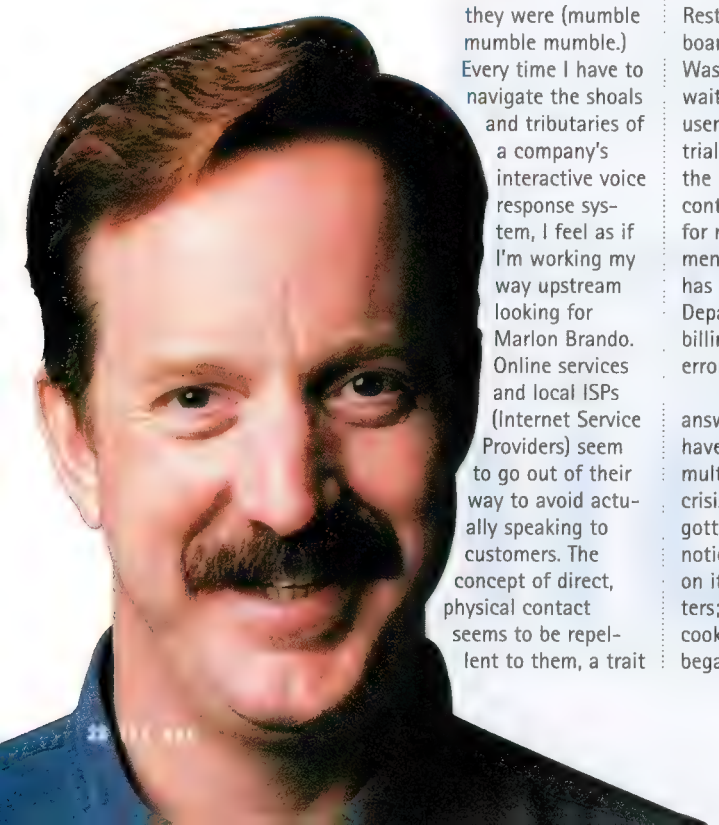
I finally got a helpful human on the phone one afternoon. She divulged Panix's location, but said the company did not invite the public to drop by for "insurance reasons." Like many ISPs, Panix is not even staffed 24-hours a day, despite a subscriber roll that tops 7,500. When the mail system collapsed one night, a frantic bulletin was issued, assuring users that "someone was on their way into the office" to fix the problem.

Local ISPs, many of them run on shoestrings, are discovering that they are suddenly a little *too* popular. Gone are the halcyon days when their users were modestly sophisticated, capable of installing and using the intricate software needed to connect into and navigate the Internet. Now everybody's Grandmother wants to get onto the net. These are people who think the word "PPP" sounds distinctly naughty, and whose patience wears to a wafer rather quickly. "Users from upper- and middle-management are the worst," says Stacey Goldsmith at Panix. "They're used to having their secretaries do everything for them."

The flat-rate, unlimited usage fees that ISPs offer are an irresistible lure to novices who don't want to pay AOL's hourly rates, and so they descend upon the ISPs, which are not prepared to handle the resulting chaos. It is not financially feasible, say the ISPs, to provide unlimited usage *and* equally unlimited, serendipitous support for a few bucks a month.

Good customer service seems to have gone the way of Melmac, clip-on ties, and the career of Connie Francis. All that those of us who are approaching our matron station in life can do is sigh and mourn the melancholy day that "customers" became "users."

Stevan Alburty (alburty@panix.com) is a technology consultant and former MIS director of Chiat/Day Advertising.



Q. What you gonna put on your Web page?

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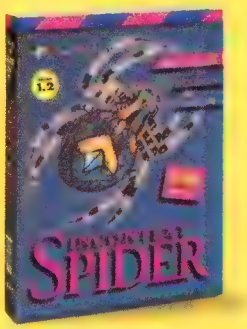

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BREAK
SOUND BA

Make Your Computer Play What You Want to Hear, Whenever You Want

by Kevin M. Savetz

Tune In

THE RRIER

It's 3 a.m. and I'm listening to the day's top news stories from National Public Radio (**http://www.npr.org/**). Now it's 3:10 and I turn to a Seattle grunge band at Virtual Radio (**http://www.microserve.net/vradio**). Then the clock flashes to 3:15, and I'm learning about the Earth's core temperature on Earth and Sky, a science program (**http://www.earthsky.com/**). Three minutes later, I'm tuned in to a call-in show about NASCAR racing (**http://www.AudioNet.com/spotalk.htm**). Next, I think I'll listen to a classic rock station in Pittsburgh (WRRK at **http://ww2.AudioNet.com/pub/wrrk/wrrk.htm**), or a country music station from Paris, Texas (KOYN– **http://ww2.AudioNet.com/pub/koyn/koyn.htm**).

No, I'm not a fickle radio listener. I'm listening to all of this fare – music, interviews, talk radio, cybercasts, and excerpts from albums – over the Internet, using a relatively new, but popular, type of Web audio streaming software. It's like having a radio that can play whatever I want, when I want it. Sort of.

A Devil's Advocate View of Web Radio

You're cruising down the freeway with the top down, the sun and wind coursing through your hair. You're humming along to the rhythm of rubber on asphalt and the purr of your engine. It's definitely time to tune in to some tunes. No prob. You reach over – way cool – unzip your computer case with one hand, pull out the notebook, connect up your cellular modem, plug it into the cigarette lighter, turn on the computer, launch Windows, launch Netscape, type in your password, dig through your bookmarks file, and pull up the RealAudio-enhanced page of your favorite radio station, click on the music link, and, after a brief pause, out comes the soothing tones of KISS (Detroit Rock City!) in hi-tech, monophonic sound.

Of course, by this time, you've driven the equivalent of the Alaska Highway. Sure, chances are you won't be listening to RealAudio (**http://www.realaudio.com/**) from the Internet while navigating a four-lane highway. But where do you listen to the radio? Probably in the car, or as an alarm-clock option, for music, weather, and traffic updates. So why bother with Internet radio at all?

You'll see the benefit to radio being on the net when, for example, you've moved from another region of the U.S. and you want to keep listening to the ol' stomping ground's sounds. A better example of the marriage between radio and the Internet is the MIT List of Radio Stations on the Internet (**http://wmbr.mit.edu/stations/list.html**). More than 1,000 stations are listed and sorted intuitively. A service like MIT's is perfect for the traveler. You'll know what station to set your hotel-room alarm clock to if you want to hear Howard Stern or National Public Radio.

Don't get me wrong. I'm all for streaming audio. I mean, where else could I listen to the entire soundtrack of *Plan 9 From Outer Space* (**http://www.w2.com/docs2/c4/plan.html**)? Is radio on its way out? I don't think so. Maybe when the dissemination of sound information is as practical as electronic text, then perhaps we'll be throwing away the Panasonic.

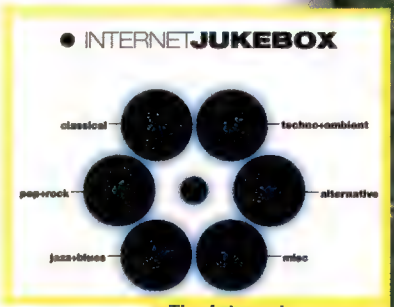
I'll have to get a snooze button installed on the computer first.

–Crystal Waters

Will Net Broadcasts Kill Radio?

All About Streaming

Internet Talk Radio (**http://town.hall.org/**) was one of the first well-known experiments in "broadcasting" on the Internet. The site, which launched in 1993, published audio files that had to be downloaded completely before they could be heard. A typical hour-long radio show consumed a whopping 20 megabytes of disk space. Internet Talk Radio was innovative, but premature – only users with expensive, high-speed Internet connections could tune in.



The Internet Jukebox (http://interjuke.com/jukebox) lets you listen to entire albums while you surf the net.

Fast forward to 1995, when a company called Progressive Networks (**http://www.prognet.com/prognet/**) created a program named RealAudio (**http://www.realaudio.com/**). This software confronted the biggest shortcoming of Internet Talk Radio – those huge, time-sucking, hard disk-eating audio files. Instead of requiring you to download a complete audio file prior to listening, RealAudio used "audio streaming." It made Internet audio viable, for the first time, for users with 14.4 Kbps modems. Several other companies have since followed suit, offering similar tools (see Sites for Sound, page 32).

The Internet Underground Music Archive (http://www.iuma.com/pages/home_page/homepage.html) is an online warehouse of tunes.

"Audio streaming" means that your computer plays sound while the sound file downloads, so you don't have to wait for the entire file to arrive before play begins. Thanks to clever programming and hearty sound compression, audio streaming applications provide "audio on demand," cutting down to just a few seconds the time you have to wait to hear a program.

Although sound on the Internet is still in its infancy, several audio streaming systems do exist. Audio streaming "players" – the software needed to listen in – are typically free, and work as helper applications or plug-ins for your Web browser. Click on an audio file, and a player launches, and sound emerges. Some programs, like RealAudio and Internet Wave (**http://www.vocaltec.com/iwave.htm**), present the listener with a set of stop, play, rewind, and fast-forward buttons. Unlike "real" radio, these programs let you stop the music if you need to step away from your desk, and pick up where you left off when you return. Even better, programs can be indexed, allowing you to jump straight to

NetTalk (http://www.nettalk.com/) is Canada's first nationally syndicated radio show about the Internet.

c|net radio (**http://www.cnet.com/Content/Radio/**) presents computer-oriented commentary for broadcast over the net.

the material that interests you. For instance, if you want to hear the news story on Radio Canada (**http://www. radio.cbc.ca/**) on why huge chunks of ice are breaking off of Antarctica, you can go directly there, skipping over the program's introduction.

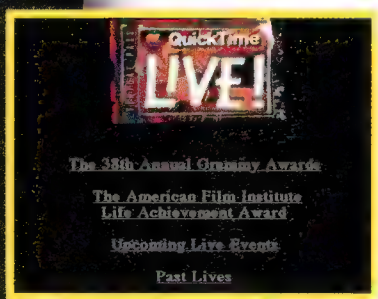
Standards are still being hashed out, and there are no "killer apps" for audio (yet). Today's streaming audio programs are not cross-compatible – if you've downloaded and installed Xing's StreamWorks (**http://www.streamworks.com/**) player, you won't be able to hear RealAudio-format sound unless you get the RealAudio player, too. The competition for the best streaming audio tool is still heated, and it's not clear if a clear victor will emerge. Victory will depend on which player offers the best sound quality, and which programs come bundled with popular browsers like Netscape Navigator (**http://home.netscape.com/**). Right now, there are more competing tools than there need to be, and the field is somewhat balkanized.

AudioNet (**http://www.audionet.com/**) offers live broadcasts of a dozen talk and music radio stations.

Today's experiments with audio provide interesting content, and work on any modern computer that's connected to the net. However, the technology still has hurdles to overcome – most notably, the sound quality of many of these services is low, slurred, and of low-fidelity. Sound quality depends on the speed of your Internet connection and the player you use. Due to their different compression formats, some programs produce better sound than others, and speech usually sounds better than music. RealAudio (**http:// www.realaudio.com/**), Toolvox (**http://www. voxware.com/**), and Truespeech Internet (**http:// www.dspg.com**) have been rated as providing the best speech clarity; while Internet Wave (**http:// www.vocaltec.com/iwave.htm**) and RealAudio (**http://www.realaudio.com/**) are considered the best choices for music.

CompuTalk (**http://www.neosoft.com/computalk/radio/radio.html**) is a talk radio show about the information age.

Still, it's fun to be on the cutting edge, listening to live feeds from radio stations three time zones away.



Apple hosts live events at its QuickTime Live site (**http://live.apple.com/**).

What's There to Hear?

Once you have a player or two installed, you'll find many choices for stuff to listen to – an eclectic mix of gleaming corporate audio sites and back-room sound experimentation. The content

Ambience Migrates Online

When something is anechoic, it's devoid of sound. It's ironic, then, that San Francisco-based Anechoic Media emphasizes sound in its first Web page, designed for Silent Records (**http://www.silent.org/**), an ambient-experimental label launched in 1986.

First Anechoic, now Silent? No coincidence. Kim Cascone, president of Silent Records, is also the force behind Anechoic Media, along with his wife Kat. Designed by the two Cascones, the Silent site is a hyper-extension of the label itself. It's at once elegant and futuristic in its graphic presentation, yet intuitive in layout. It's also quite minimal, much like an ambient soundscape.

Cascone initially put off creating a site for his label, citing the difficulties of getting good sound quality for the music. That is, until he discovered MPEG. This technology allows him to sample a 30-second sound bite at 16-bit, 44.1 kHz in the same amount of space as an 8-bit, 22 kHz bite. (Visitors to the site can download a high-quality MPEG player demo that plays back about five seconds of audio.)

Obviously, having music available to potential customers online can't hurt, but does it actually move it off the shelves? "There's a long shot between advertising and sales," says Cascone. "We look at [the site] as a glorified television ad." But in the not-too-distant future, predicts Cascone, the Internet will be used less as an advertising vehicle for music labels and more as a forum for musicians to interact directly with their fans. This is already beginning to happen, with live music star chat sessions on America Online, for example. Cascone also expects music sites to become much like enhanced CDs, with reference material on the artists available online. Listeners may then begin to expect a visual, as well as musical, aspect to the presentation of all recording artists. Cascone also believes that once cable modems become commonplace, and bandwidth expands as a result, fully immersive, 3D environments will be possible on the net. He then hopes to create an interactive environment via VRML at the Silent site. Actual sounds will be represented by specific shapes (i.e., a bass note could be imaged as a blue sphere). The listener could then interact with both sounds and shapes, becoming an active participant in the environment, rather than a passive listener, as the case is now. The Internet could forever change the way we listen to music.

–Adam Douglas

Sites for sounds

Audio streaming software

Internet Wave: **http://www.vocaltec.com/iwave.htm**

RealAudio from Progressive Networks: **http://www.realaudio.com**

StreamWorks from Xing Technology: **http://www.streamworks.com/**

ToolVox from Voxware: **http://www.voxware.com/**

TrueSpeech Internet from the DSP Group: **http://www.dspg.com**

Audio content providers

AudioNet: **http://www.audionet.com/**

c|net Radio: **http://www.cnet.com/Content/Radio/**

CompuTalk: **http://www.computalk.com/**

Internet Jukebox: **http://interjuke.com/**

Internet Talk Radio: **http://town.hall.org/**

Internet Underground Music Archive: **http://www.iuma.com/**

Islamic Audio Studio: **http://www.bev.net/community/sedki/icb_ra.html**

National Public Radio: **http://www.npr.org/**

net.radio: **http://www.netradio.net/**

NetTalk: **http://www.nettalk.com/**

Public Broadcasting System: **http://www.pbs.org/**

QuickTime Live: **http://live.apple.com/**

Quirks & Quarks: **http://www.radio.cbc.ca/radio/programs/current/quirks/**

Radio Canada: **http://www.radio.cbc.ca/**

TheDJ: **http://www.thedj.com/**

Virtual Radio: **http://www.microserve.net/vradio**

Web Japan: **http://www.webjapan.co.jp/webjapan/**

More information

List of radio stations that use the Web: **http://american.recordings.com/WWWoM/radio/radio.html**

Yahoo's index of net radio stations: **http://www.yahoo.com/Entertainment/Radio/Internet**

A Boom Box With 10 Million Stations

ranges from online rebroadcasts of traditional radio stations to Internet-only "cybercasts." Information providers also utilize audio streaming to welcome visitors to their Web pages, even to offer an audio tour of the site. The variety of content in this burgeoning field is astounding.

NetTalk (**http://www.nettalk.com/**) is Canada's first nationally syndicated radio show about the Internet. It's hosted by Jim Carroll and Rick Broadhead, authors of *The Canadian Internet Handbook* (Prentice Hall Canada, ISBN: 0-13-329350-5). NetTalk is heard both on the air and the net. By putting the show on the Internet, NetTalk has made itself available to people online who can't hear it on the radio, as well as to Canadian listeners who may have missed a show. NetTalk is heard over the air by an estimated 600,000 to 1,000,000 listeners. But the show's potential online audience is much wider: There are about 1.5 million Canadians with Internet access – and the show is also available to the rest of the Internet community. Carroll is not sure how large the online audience is. "The whole concept of audio on the net is new. People are just beginning to explore what's possible here," he says.

Because so many different audio technologies are available, information providers and users have to make some difficult decisions about what tools to use. You could spend a weekend just downloading and installing various helper apps and Netscape plug-ins for audio streaming. Information providers, which typically must pay for the software to encode and distribute streamed audio, often can't afford the time and expense of using more than one format. NetTalk decided to use RealAudio. "RealAudio has critical mass," Carroll says. "It does not require fast access to the net, and it's the easiest to configure."

What else is out there?

Every day, c|net radio (**http://www.cnet.com/Content/Radio/**) presents original commentary on the digital world that is created exclusively for broadcast over the Internet. CompuTalk (**http://www.neosoft.com/computalk/radio/radio.html**), calling itself the "source for geek-free computer radio," is a mainstream talk radio show about the business, politics, and personalities of the information age. If it's music you yearn for, check out Virtual

If Orson Welles came back to life and reenacted his infamous "War of the Worlds" radio broadcast, he might throw not just America, but the entire planet, into hysterics. Radio has indeed changed dramatically since 1938. Through the power of audio streaming, the pioneering broadcast medium has hooked up with the Internet to reach a truly global market. A little 200-watt station in Tallahassee doesn't have to be just a little 200-watt station in Tallahassee. That little station can now reach listeners from Florida to Finland – without an FCC license and expensive radio tower. Radio has ditched airspace for cyberspace.

Scott Bourne says he saw the revolution coming. "I'm an old radio guy," says the Columbia School of Broadcasting graduate and president of net.radio (**http://www.netradio.net**). "I saw the Internet as a way to meld the oldest technology with the newest. The train was at the station, and I said, 'I'm getting on.' "

An ambitious start-up still in its toddler stage, net.radio provides both live and archived "broadcasts" of typical radio content – classic rock, alternative rock, sports talk, etc. The idea is to provide a variety of formats via a single channel. Click on a hot button, and you hear an extended radio show (DJ included) via RealAudio (**http://realaudio.com/**), a helper application that allows you to hear audio almost instantly without download delays. While the sound quality may not be spectacular, the content possibilities are exciting.

Bourne says net.radio will be able to offer market-specific content on demand, pleasing consumers and advertisers alike. This means, for example, whether you're sitting in a grass hut in Tahiti or in an igloo in Alaska, you'll still be able to hear broadcasts of your favorite hometown baseball games. "We could do an all barber shop quartet network, and get an ad that only sells straw hats," Bourne says.

More than 40,000 regular users strewn across 70 countries listen to net.radio – not bad for a 14-employee start-up operating out of Minneapolis. The site currently boasts eight sponsors, and recently signed IBM, its first high-profile name. The "station" receives about 2,000 e-mail messages a day. The fans' biggest misconception? "People misunderstand that we're not just porting over a local radio station. We don't have a frequency, and we don't have a tower," Bourne says.

–Jon Phillips

the net

http://www.thenet-usa.com

THE INTERNET GLOSSARY

EMOTICONS

How many faces can you find lurking in your keyboard? Here are some of the everyday emoticons you'll find on the Internet.

:)	Smile
<g>	Grin
:(	Frown
;)	Wink
:P	Disgusted, sticking one's tongue out.
:( )	Can't stop talking (the gossip-monger's favorite).
:O	Shocked
:'(	Crying
:-#	Lips are Sealed
^5	"High Five" (the '70's still lurk in odd places on the net).
((((name))))	A cyberhug for the gushy users.
@--)--)(--	A rose, for the romantic, lost in cyberlove.

And of course the less publicized...

:)	Elvis sighting

ONVERSATIONAL ACRONYMS

sed in newsgroup messages and mail to save keystrokes, foster ared esoteric knowledge and fuse the newbies:

IK "As Far As I Know;"
I, I guess this is right).

"Be Right B...

Talk the Talk...

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5FWW3
ACTIVATION CODE

Radio (**http://www.vradio.com/vr.html**) and the Internet Underground Music Archive (**http://www.iuma.com/pages/home_page/homepage.html**). Both are online warehouses of tunes, mostly by unknown, unsigned bands (with some exceptions).

The Internet Jukebox (**http://interjuke.com/jukebox**) lets you listen to entire albums while you surf the net. Billing itself as the world's first 24-hour-a-day, live, Internet-only radio network, net.radio (**http://www.netradio.net/**), specializes in vintage rock, unsigned bands, and classical music, as well as news and sports. If that's not enough, try TheDJ (**http://www.thedj.com/**), a customizable music service providing tunes in a dozen genres.

TheDJ (http://www.thedj.com/) is a customizable music service providing tunes in a dozen genres.

More online audio choices include "Quirks & Quarks," Canada's weekly national science show focusing on technology, medicine, space, and the environment (**http://www.radio.cbc.ca/radio/programs/current/quirks/**). Although much of the material available with streaming audio is canned and pre-recorded, you can also find "live" shows. For example, Apple Computer hosts a series of special events at its QuickTime Live site (**http://live.apple.com/**), such as The Sundance Film Festival and the Grammy Awards. AudioNet (**http://www.audionet.com/**) provides live broadcasts of a dozen talk and music radio stations. It also offers numerous live sporting events. In a unique use of the medium, AudioNet also presents several audio books. Internet audio is not an English-only phenomenon. Sites such as the Islamic Audio Studio (**http://www.bev.net/community/sedki/icb_ra.html**) and Web Japan (**http://www.webjapan.co.jp/webjapan/**) offer information in foreign tongues. National Public Radio's Web site (**http://www.npr.org/**) has news and election coverage, as well as many of its popular shows. Richard Dean, producer of new media services at National Public Radio, is excited about the benefits of publishing audio on the Internet, though he notes some drawbacks. "As a listener, it's a great thing. As a radio programmer, maybe it's not such a great thing – it disturbs the continuity of the program," he says. "Instead of pushing info at someone, you allow listeners to come get it from you." He adds: "The biggest problem with radio is that your work is really ephemeral. It hits the aether and it's gone." Because a transcript can't capture the nuances of a news story, and audio tapes take time to arrive, the Internet gives NPR listeners the ability to hear – or re-hear – a story at any time, when it's convenient. "This is where radio broadcasting – information-providing – is going," Dean says.

RealAudio (http://www.realaudio.com/) provides good speech and music clarity.

National Public Radio's site (http://www.npr.org/) lets you listen to the news any time.

Virtual Radio (http://www.vradio.com/vr.html) is a music broadcast site.

Two-thirds into his career, Ken Rutkowski is finally beginning to realize success. Not bad for a four-month-old career. Rutkowski is the host and creative force behind TechTalk, a talk show about digital technology ostensibly based in Chicago that reaches international audiences via a RealAudio-fueled Web site (**http://www.ttalk.com/**). Since the beginning of 1996, Rutkowski has graduated from being a regular Joe with yet another Web-based business to an entrepreneur who's invited to evangelize at major trade shows. The magic behind the weekly broadcast is Rutkowski's ability to connect Hollywood celebrities and industry insiders – big industry insiders – with listeners from Australia to Canada to Taiwan. "I don't even take Chicago into consideration," says the 29-year-old personification of the Energizer bunny.

Rutkowski describes some of his guests.

- *Star Wars* legend Mark Hamill: "He's pumpkin pie. Humble. Incredibly down-to-earth. Probably what Luke Skywalker would really be like."
- Mac evangelist Guy Kawasaki: "The high priest of Macintosh. He's a warrior."
- PC guru John Dvorak: "Very critical. He's your tech mother-in-law, so don't screw around with him."
- Penthouse Pet Julie Strain: "Very quick-witted. Totally fearless."
- Sadsack Rodney Dangerfield: "He has no idea what he's doing with technology. He's your grandpa on the computer."

Though Rutkowski draws liberally from a pool of traditional celebrities, no one makes it on his show without a tech angle. Indeed, it's TechTalk's mixture of glitz and silicon that has created such a stir. Rutkowski keeps a tight lip when asked about immediate expansion plans, but waxes poetic on what he would like to experience in the future: "I'm looking forward to streamed audio and video on the net, fully interactive. I want people to see the show. I want people calling right from their PCs. I want to actually touch the people I'm talking to."

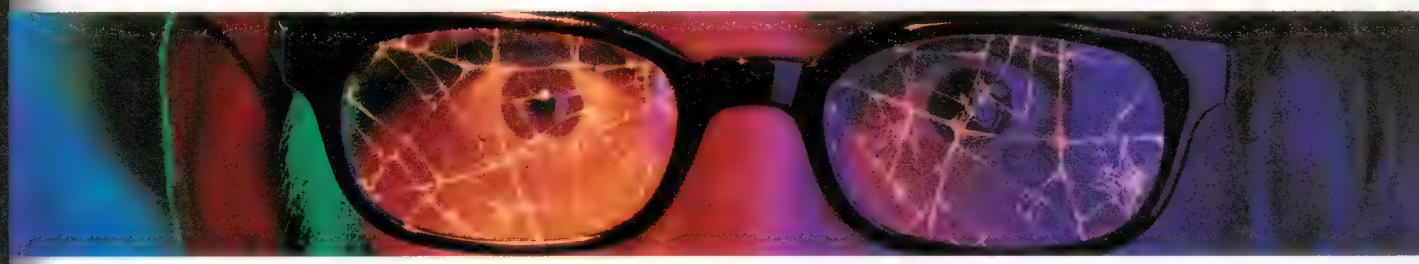
–Jon Phillips

Getting Nrrrdy With Tinsel Town Technophiles

Sound Off

Use the Net as a Cheap Alternative to Long-Distance Calling

by Kevin M. Savetz



Forget Internet Relay Chat. Forget about trying to talk to your fellow Internet users using the Unix "talk" command. Forget about those hackish Web chat sites. If you want to talk with others on the Internet, just say "hi."

In recent months, several programs have become available that let you, if you're equipped with a multimedia computer and special software, speak in real-time over the Internet, using the network like a telephone. Some of the available programs that do voice on the net are free. Others are commercial. Most of these products are ready for prime time, though others are still being tested.

Imagine doing your regular online thing – maybe reading your e-mail or checking out some Web pages – when the computer "rings." It's an incoming call. You switch to your audioconferencing software, click "answer," and then you're chatting in real-time with your boss, your mom, or anyone else with an Internet connection, anywhere in the world. All it takes is a Mac, Windows, or OS/2 PC with a microphone and sound card, a SLIP or PPP connection, and a modem or a LAN. Amazingly, for most of these programs, a 14.4 Kbps modem is enough to transmit intelligible voices, and even 9600 bps is sometimes enough bandwidth.

CyberPhone's software (http://magenta.com/cyberphone/) provides excellent sound quality.

Audioconferencing programs work by digitizing your speech and sending the digital data over the Internet, compressing it along the way. The person you're talking to must have compatible software that decompresses the audio and plays your voice out of the computer's speaker.

I'm not suggesting that your PC and modem will replace Ma Bell anytime soon. The obvious drawback of online audio is that you can only talk to associates with

The Software You Need

CU-SeeMe
Macintosh and Windows
http://cu-seeme.cornell.edu/
CU-SeeMe is a project of Cornell University that allows for audio and videoconferencing over the Internet. Sound quality is good, but you might have problems with a 14.4 Kbps connection.

Cyberphone
Windows and Unix
http://magenta.com/cyberphone/
Cyberphone offers useful features, such as a good user directory, text-based chat, and user-to-user file transfers. It also provides excellent sound quality.

DigiPhone
Windows
http://www.planetcors.com/
DigiPhone comes by itself, or in a complete package that includes a Web browser and functionality for e-mail, Telnet, FTP, voice messaging and caller ID.

Continued on next page

Intercom
Windows
http://www.telescape.com/html/HOME-PG.HTM
Although it doesn't have a user directory, Intercom allows integration with your e-mail and file transfer programs. It also lets you display a picture of yourself so other users can see what you look like.

Internet Phone
Macintosh and Windows
http://www.vocaltec.com/
Internet Phone runs on top of Internet Relay Chat, providing you with a list of online users and topics of conversation to choose from. It makes it easy to find new people to chat with. Its proprietary compression scheme, though, means that it is incompatible with other applications.

Maven
Macintosh
ftp://sunsite.unc.edu/pub/packages/infosystems/maven
Maven was the first Internet audio conferencing tool for the Macintosh. It is free software that can talk to other Macs that are running Maven, as well as to the Unix "vat" program.

NetPhone
Macintosh
http://www.emagic.com/
NetPhone is a robust commercial program that offers many features unavailable in other Mac products.

PowWow
Windows
http://www.tribal.com/
Providing delayed voice communication, PowWow is one of the better personal communications applications. If its voice communications are improved to support real-time communication, PowWow would easily be one of the best applications available.

Continued on page 38

similarly equipped hardware. Although there are millions of folks with Internet accounts, it will probably be many years before all of your friends and relatives are on the net.

Audio Quality

Surprisingly, if you have a good Internet connection, the sound quality is comparable to what you get with a regular phone call. However, sound quality varies dramatically between applications, and depends largely on the bandwidth limitations at each end. If you have a good local network connection, then some applications provide sound quality that is significantly better than a regular telephone call, because they use 16-bit signals rather than the 8-bit signals used in regular phone lines.

The quality of the audio you'll send and receive depends on the application you're using, the speed of your computer, and the compression method used. Still, talking across the country or around the world for the cost of an Internet connection is amazing, and easy on the wallet. Depending on the software, talking over the Internet may be more like using CB radio than a telephone. Unlike a phone conversation, which you can interrupt, or inject "uh-huhs" into, several of today's programs allow only one person to speak at a time. It's called half-duplex conversation, and it means that you must wait for the speaker to release the line before you can respond.

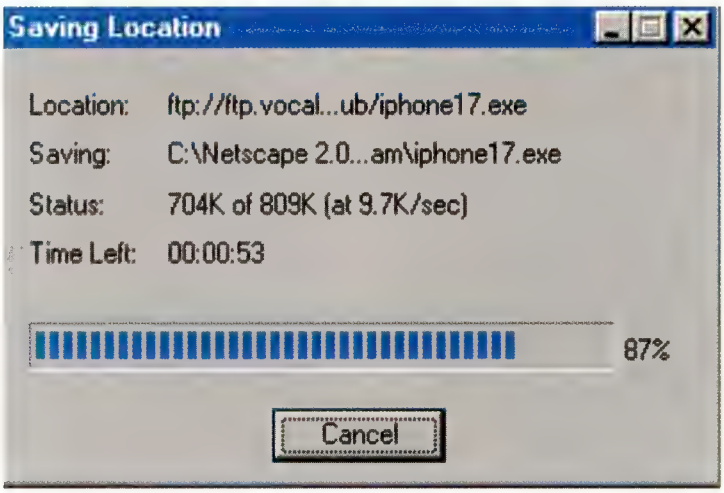
Even if your software allows full-duplex, real-time conversation, there's always a short but sometimes noticeable gap between when you speak and when your associate hears your words. The modems themselves introduce about a quarter-second of "latency" in the sound transmission after doing their work of buffering, error correcting, and data compression.

Some audioconferencing programs use proprietary compression methods that make it impossible to talk with users of other products. To talk to others using different software, you need to have the same type of connection scheme and the same type of

Telescape's Intercom (http://www.telescape.com/html/HOME-PG.HTM) is Windows-only software that lets you display a picture of yourself for other users to see.

Webphone (http://www.itelco.com/) offers advanced features such as voice mail, WWW integration, multiple lines for simultaneous calls, a message board for text communications, and a user directory.

PowWow, for Windows only (http://www.tribal.com/) is one of the better personal communications applications.



IN 53 SECONDS YOU CAN BE TALKING TO ANYONE IN THE WORLD. FREE.

www.vocaltec.com/demo12.htm

Download a FREE demo of the award-winning Internet Phone today! There's never been a better time to try this breakthrough software from VocalTec. It's fully cross-platform compatible for Mac and Windows. So if you have Internet access, a standard multimedia computer and Internet Phone software, you can have a real-time, full-duplex voice conversation with anyone, anywhere in the world, who has the same setup. And it's FREE, except for your regular Internet access charges. Hard to believe? Come see for yourself.

For more information on where you can get Internet Phone, call 201-768-9400, e-mail: info@vocaltec.com or stop by our Web site or one of the locations listed below.

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COMPUSA THE COMPUTER SUPERSTORE

COMPUTER CITY

EGGHEAD SOFTWARE North America's Software Resource

software etc

compression. It may also be possible to talk to users using a different computer platform (PC, Mac, or Unix) than you: Speak Freely (**http://www.fourmilab.ch/netfone/windows/speak_freely.html**) and Cyberphone (**http://magenta.com/cyberphone/**) offer full compatibility between Windows and Unix users. CU-SeeMe (**http://cu-seeme.cornell.edu/**) and Internet Phone (**http://www.vo caltec.com/**) offer compatibility between Mac and PC users using the same application.

Some programs go far beyond merely emulating a telephone. Toys are available in various programs that let an answering machine answer your digital telephone when you're not there; or give you the ability to have a conference call among three or more people; or provide encrypted data to protect your conversation from hackers.

The phone companies aren't very pleased with the Internet telephony trend. A group of 130 telecommunications companies called the America's Carriers Telecommunication Association (ACTA) has asked the Federal Communications Commission to stop companies from selling software and hardware products that enable the use of the Internet for long-distance voice communication (*The Net* June 96, page 17). ACTA submits that it is not "in the public interest to permit long-distance service to be given away, nor is it in the public interest for these select telecommunications carriers to operate outside the regulatory requirements applicable to all other carriers." For more information, visit the VONYES Coalition home page (**http://www.von.com/vonyes/**).

Large long-distance companies, such as AT&T, are less concerned with net telephony – after all, they also make money by selling Internet bandwidth to Internet service providers.

A free program, TeleVox (http://www.voxware.com/) lets you change the way your voice sounds using "voice fonts."

Internet Phone (http://www.vocaltec.com/) offers compatibility between Mac and PC users using the same application.

PGPfone
Macintosh and Windows 95
http://web.mit.edu/network/pgpfone/
Hailing from the makers of the PGP encryption scheme, PGPfone offers audio encryption over the Internet. The encryption scheme used in the application is only available in the U.S. This is a free program.

Speak Freely
Windows and Unix
http://www.fourmilab.ch/netfone/windows/speak_freely.html
Speak Freely is one of the best applications available. It offers voice mail and encryption, and usually provides excellent sound quality.

TeleVox
Windows
http://www.voxware.com/
A free program, TeleVox lets you change the way your voice sounds using "voice fonts."

Webphone
Windows
http://www.itelco.com/
Webphone gives users a slick interface that looks like a cellular phone. It also offers advanced features, such as voice mail, World Wide Web integration, multiple lines for simultaneous calls, a message board for text communications, and a user directory.

Webtalk
Windows
http://webtalk.quarterdeck.com/
Webtalk offers good integration with the World Wide Web, and provides nice sound quality. Other features include a message board for text, and a user directory.

For More Information

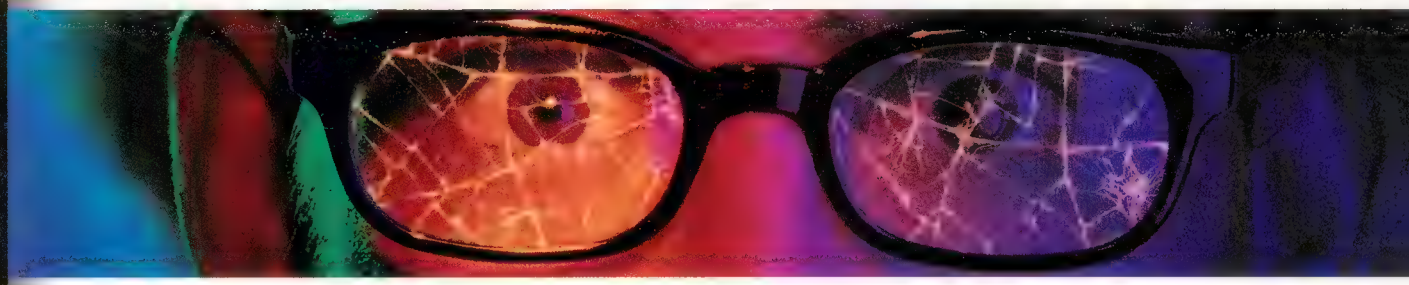
A complete and up-to-date guide to Internet telephony can be found at the Internet Telephony page (http://rpcp.mit.edu/~asears/main.html).

Also, check out the FAQ, "How can I use the Internet as a telephone?," at http://www.northcoast.com/~savetz/voice-faq.html or http://rpcp.mit.edu/~asears/voice-faq.html.

Beam Out

Videoconferencing Comes of Age

by Todd Marshall



It's been prophesied for years. The Jetsons had it in their home. The Enterprise crew used it in space. Even David Hasselhoff used it while puttering around in KITT, his wonder car. But video teleconferencing – remote communication employing both video and sound – has eluded most of us. The technology has been around for a while, but costs have been prohibitive.

The Internet has changed all that. With a $99 video camera, a computer, and an Internet connection, you can meet anyone face-to-face, around the world. And it's catching on quickly. Long-distance friends can hang out and have eye-to-eye conversations. Companies also are quickly reaping the rewards, saving thousands of dollars on airfare by simply having meetings over the net.

While there are still some major bandwidth problems to overcome, a form of video teleconferencing could quickly replace e-mail. Given a choice, which would you rather do: Take 10 minutes to peck out a thought on the keyboard, or blurt it into a camera? In fact, as technology continues to improve, many have predicted that video will become the data of choice. It won't ever replace the number-crunching power of a spreadsheet, but for straight, flat information, nothing's faster.

Making It Work

Enough already. You're sold, right? But before you throw away your telephone and attempt to communicate only through video teleconferencing, there are a couple

CU-SeeMe software (http://www.cu-seeme.cornell.edu/) uses strong compression control to allow video and audio to stream through the Internet to your machine.

of big hurdles to clear. Here are some things to consider, before you invest in any video teleconferencing system.

The first is the ever-present Internet burden: bandwidth. Most of us are still squeaking along with a 14.4 or 28 Kbps modem, avoiding graphic-intensive Web pages like the plague, let alone video. And the truth is, for full-screen, hassle-free video teleconferencing, we're all going to have wait around for a better solution, like the long-promised cable modem or set-top box.

The ICU site (http://www.trey.com/cuseeme/) has great how-tos on CU-SeeMe, and a list of reflector sites as well.

But you *can* use small-scale videoconferencing solutions today, ones that keep in mind that most of us are equipped with simple analog modems. Software like CU-SeeMe (**http://cu-seeme.cornell.edu/**) uses strong compression control to allow video and audio to stream through the Internet to your machine. The end results aren't mind-blowing, but they work. Expect a small, often grainy window with black-and-white video.

Digital video that comes off of a CD-ROM, like a QuickTime video, has a rate of 15 to 30 frames a second. Through today's video teleconferencing, that rate is often squeezed down to only a few frames per second. The result is choppy video. Also, there's often no audio at all, just text. You can see the person on the other end, but you're still communicating through typing. Why not just send e-mail, and look at a snapshot of the recipient while you're writing it? Well, because it isn't as much fun.

The Reflector (http://www-bcf.usc.edu/~vanman/reflector.html) is a fanzine for video teleconferencing junkies.

If you're brave enough to still have a 14.4 Kbps modem, this will all become much too apparent if you try video teleconferencing. The 28.8 Kbps folks won't do much better. If you or your business is seriously considering implementing video teleconferencing into everyday use, your best bet is to go with ISDN. And make sure to find an Internet Service Provider that can handle multi-link PPP – meaning that both channels of an ISDN line can be used for downloading the same thing. The end result is an overall connection of 128 Kbps, around three times faster than the fastest analog modem. If you and a friend are both piped into the Internet at that speed, you'll really get a sense for the promise

Video Teleconferencing References

Videoconferencing is still far from standardization. Meeting face-to-face via CU-SeeMe and the Internet is just one of a dozen ways to do it. The following is a list of other videoconferencing product Web sites, as well as sites with videoconferencing information, and some reflector resources to get you started.

CadLab – Videoconferencing Test Bed

http://erc.www.ecn.purdue.edu/ecm/information/research/projects/videoconf/

Thinking about getting a heavy-hitting videoconferencing system, but not sure which one? Some students from Purdue University did a competitive analysis of several videoconferencing systems, from software-only to high-end hardware systems.

CU-SeeMe List Serve

http://cu-seeme.cornell.edu/listinfo.html

When CU-SeeMe has become your religion, you'll probably want to be on Cornell University's CU-SeeMe mailing list. This page gives instructions on how to get on it.

Desktop Videoconferencing

http://fiddle.ee.vt.edu/succeed/videoconf.html

This serves as an excellent primer for generic video teleconferencing. Want to know what standards are being worked on, as well as how teleconferencing actually works? This is the place.

Desktop Videoconferencing Products

http://www3.ncsu.edu/dox/video/products.html

Wondering about what videoconferencing products are out there? This is a fairly complete list.

ICU

http://www.trey.com/cuseeme/

While The Reflector (see below) is more for the social enthusiasts, ICU is geared toward the technical enthusiast. ICU has a live-chat area, as well as how-tos on CU-SeeMe and helpful tips for optimal performance. A large list of reflectors is also available.

The Reflector

http://www-bcf.usc.edu/~vanman/ reflector.html

To say that video teleconferencing has an acute following would be nice. The fact is, the amount of CU-SeeMe junkies is growing at an alarming rate. This fanzine of sorts has plenty of reflector links, news of CU-SeeMe, lots of photos, and the ever-popular graffiti wall (**http://www.sped.ukans.edu/cgi-bin/graf-out**).

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boot

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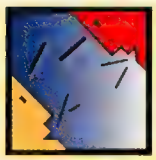
Enhanced CU-SeeMe



Enhanced CU-SeeMe™

If you're using video teleconferencing for work purposes, you'll most likely bump up against the limits of CU-SeeMe in no time. You can talk a co-worker's ear off, but there's no easy way to share data. Also, if you've standardized on ISDN or T1, you have a lot more power, and can probably up the frame rate of your transmissions, and even dabble in full-color and stereo teleconferencing.

White Pine Software's Enhanced CU-SeeMe one-ups the shareware version by offering several enhancements that make it a good low-cost solution to the big money hardware/software solutions that big business uses today.

It's also an interesting tool to use within your own office, since you can use the teleconferencing features on your own LAN.

Enhanced CU-SeeMe comes with the complete version of WhitePineBoard, a white board application that lets you share any data you can come up with.

Any graphic or document can be viewed at the same time by anyone linked together. Annotations and notes can also be added to the data you're viewing.

It's ideal for remote workers who want to sit in on those important board meetings and be on the same page. For brainstorming and note-taking, WhitePine Board also comes with an area for free-form thought, where you can sketch out your ideas.

For offices with bandwidth to spare, Enhanced CU-SeeMe supports up to 24-bit true color, which can be used especially well within a LAN.

It also supports a range of audio codecs, from 2.4K to 32K, depending on your connection speeds. At 32K, you're getting audio that easily surpasses phone quality.

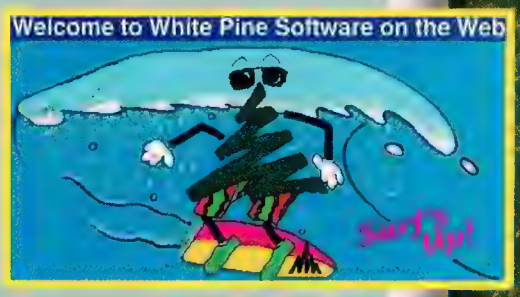
There are also plenty of handy add-ons for serious communication, like broadcasting, and multicasting capabilities. In other words, you can have anything from person-to-person conferencing to large group conferencing, where co-workers all over the world can check in.

Through broadcasting, also known as cybercasting, you can shoot out video, either live or taped, onto the Internet, where anyone with a copy of CU-SeeMe (regular or enhanced) can tune in. That should give the cable companies a run for their money.

Rather than watching the FOX channel on television, you can watch an IP address on your computer.

Finally, the enhanced version has plenty of control over both security and video transmission.

You can control the rate and window size your video will be. CU-SeeMe also supports Caller ID, so you can feign "no one's home" when you get a video call from the boss. Also, the program doesn't jeopardize any security firewalls in your network. If someone isn't allowed to access your IP address, he or she won't be able to with this package, either.



Along with these added features, Enhanced CU-SeeMe also comes with all the regulars: an address book of IP addresses for quick hook-ups, simple set-up, and a graphical interface.

Although it's $100 a copy, its extended power makes this a very small price to pay for educational and business settings that need all the little extras they can get.

Contact Info:
Enhanced CU-SeeMe
Manufacturer: White Pine Software
URL: http://www.wpine.com
Address: 40 Simon Street
Nashua, NH 03060-3043
Telephone: 603 886-0903

–Todd Marshall

Apple's QuickTime Conferencing Kit is available for both Mac and Windows.

of video teleconferencing. You can see each other in true color, at a higher frame rate, and even in stereo. And, as we all wait around for new technologies to thwart the bandwidth burden, ISDN keeps dropping in price. Rates vary throughout the country, but you can easily keep your monthly tab under $50 a month. Call your local telephone company for more information.

In business situations where quality has to be better, there are some specialized solutions to give you Jetsons-esque teleconferencing. British Telecom (**http://www.bt.net/**), for instance, offers an all-in-one box that has a camera, microphone, and screen. It's all set to go; all you need is an ISDN line and someone else with the same unit (which costs a daunting $4,000 apiece). But it works beautifully, and is ideal for big businesses that need the best in quality. The only problem with proprietary systems like this is that you're limited to using it with others that

Other Helpful Sites:

CUSeeMe Clips
ftp://ftp.eden.com/pub/cuseeme/

CUSeeMe Event Guide
http://www-personal.umich.edu/~johnlaue/cuseeme/default.htm

CUSeeMe Reflector Listing
http://www.usc.edu/cgi-bin/finger?johnb@crux1.cit.cornell.edu

CUSeeMe Used in Education
http://uts.cc.utexas.edu/~susanw/av/cucme.html

CUSeeMe User Guide for Mac Users
http://www.indstate.edu/msattler/sci-tech/comp/CU-SeeMe/users-guide/index.html

CUSeeMe User Guide for Windows Users
ftp://ftp.eden.com/pub/cuseeme/

NASA Television CUSeeMe Site
http://btree.lerc.nasa.gov/NASA_TV/NASA_TV.html

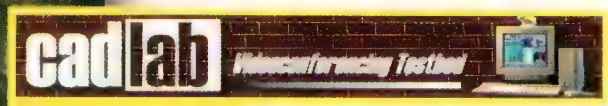
Undernet IRC CU-SeeMe Home Page
http://www.realtime.com/~wcw/

Video Teleconferencing Experiments
http://www.hiof.no/ludvigsen/webdoc/video.html

have the exact same thing. In other words, there would be no good excuse for you to take one of these units home for the weekend. You'll likely not be able to connect to anyone else.

Poor Man's Video

Those of us with limited funds can still check out video teleconferencing, even if we don't have a digital video camera. Simply download a free copy of CU-SeeMe (**http://cu-seeme.cornell.edu/**), and you're ready to go. There are several CU-SeeMe reflectors on the net that are free, and that welcome visitors (see Video Teleconferencing References, page 40). CU-SeeMe has become popular enough that there are several clubs and special interest groups with set-up sites. And once you have the CU-SeeMe shareware, you have everything you need. You can access sites that are open to the public, and lurk around to check out what people are doing.



Purdue University students created CadLab to help you figure out which videoconferencing system to use.

If you're ready to start really using video teleconferencing, you'll need a digital video camera, the obvious choice being Connectix's QuickCam (**http://www.connectix.com/**). It's a $100 investment, and is what a majority of video teleconferencers are using today. If you work for a corporation, you may want to go the expense-it route – especially if your company promotes telecommuting. Use it for work, then use it for fun. Just make sure to get a standard set-up. Your best bet is to go with CU-SeeMe and an ISDN line. That way, there will be plenty of other people you can chat with.

Anyone who's a parent, or a little squeamish about risqué material, take note. There are a number of exhibitionists on the Internet equipped with video cameras. While most of their stuff is clearly labeled, there is some pretty heavy-duty material out there that's definitely not for children. In fact, a healthy chunk of the CU-SeeMe sites out right now are sexually explicit.

Nice Seeing You

If you haven't checked out CU-SeeMe yet, give it a shot. Once you get through the set-up, it's no trouble to use. And there are plenty of places to go. Again, for any serious use of video teleconferencing, you'll need an ISDN line. But if you're just looking for a place to meet your friends face-to-face, or want to meet exciting new people around the world, grab a QuickCam and sign on.

You won't believe your eyes.

Video Teleconferencing Products

CUSeeMe
Cornell University
http://cu-seeme.cornell.edu/

Enhanced CUSeeMe
White Pine Software
http://goliath.wpine.com/cu-seeme.html

QuickTime Conferencing Kit
Apple
for Mac: http://support.info.apple.com/qtake/qt150_mac.html
for Windows: http://support.info.apple.com/qtake/qt150_win.html

VisionTime Gold
SpecCom
http://www.specom.com/vtime.htm

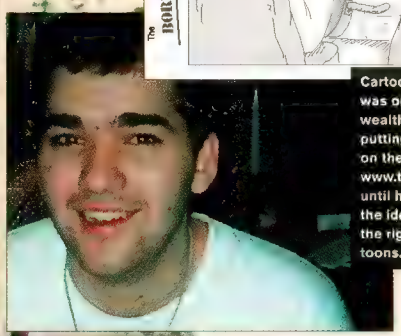
Desktop and Group Videoconferencing Products
PictureTel
http://www.picturetel.com/products.htm

Comminique
Insoft
http://www.insoft.com/ProductOverview/C/C.html

ShareVision 3000
Creative Labs
http://www.creaf.com/wwwnew/complex/products/sharevn.html

Making Money

by Laurie Berger



Cartoonist Gabe Martin was only dreaming of wealth and fame after putting his wacky artwork on the Web (http://www.the-borderline.com/), until he and his dad hit on the idea of giving away the rights to use the cartoons.

Gabe Martin dreamt of finding fame and fortune by selling his artwork over the Internet. The 16-year-old cartoonist thought his wacky cartoons — part "Far Side" and part *Mad* magazine — were a natural fit on the Web. He was only half right. After 12 months of running The Borderline (**http://www.the-borderline.com**), his online gallery, he'd found fame, but no fortune. He hadn't made a single sale. Then his Dad was laid off, became his business partner, and proposed trying the "Netscape Strategy." The partners gave away the rights to use the cartoons. It worked. They found that more than 2,000 fans began flocking to the site each day.

That's when Gabe got his first big break — but it wasn't what he expected.

Instead of selling actual cartoons, or getting advertisers to put banners on his site, he landed a job. A gig with the *San Diego Union*, to be exact, drawing a daily cartoon for the 370,000-circulation newspaper. This was followed by phone calls from the prestigious King Features Syndicate, as well as corporations with high-paying contract work.

Gabe's story is far from unusual. Each day, thousands of would-be entrepreneurs enter the topsy turvey world of cyberspace thinking, "Hey, I can get rich quick!" But as many quickly discover, the net's low price of admission doesn't guarantee quick returns.

Cashing In on a New Medium

To be sure, the Web is being touted as the world's largest dial-up marketplace. If the statistics from Nielsen Media Research (**http://www.nielsenmedia.com/whatsnew/execsum2.htm**)

Tip #1

Plan Carefully.
Ask yourself: Why do you want to be on the Web? If your answer is, "Everyone's doing it," you have some planning to do. Ask some more questions: Will the Web actually help my business? Will it allow potential customers to learn about me? Will it help me develop a list of potential customers? Will it allow me to sell products or services directly? Figure out what you want your site to accomplish, then decide if you have the resources to swing it.

–Jim Burton

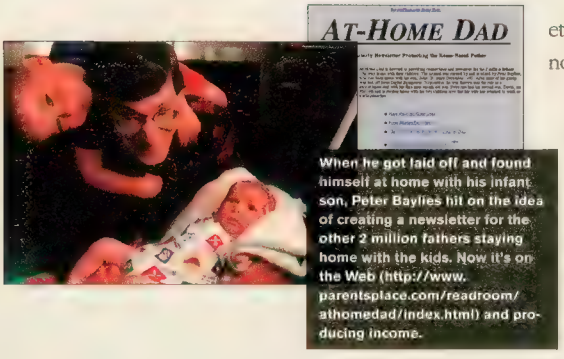
Tip #2

Be Unique.
Whether you're peddling rare Egyptian books or $5 bottles of mouth-numbing hot sauce, offer hard-to-find products or services. This is the key to success. Even the most competitive online businesses, like sellers of coffee, T-shirts, or videos, can be profitable if they find their niche, says Daniel Janal, author of *101 Business You Can Start on the Internet* (Van Nostrand Reinhold, 1995). "There are hundreds of people selling gift baskets on the Web," he explains. "But baskets for diabetics, that's another story." Also, stay away from products that people need to see before they buy. "That's still the domain of the retail market," says Scott Nelson, a research director with the Gartner Group.

–Laurie Berger

ney On The RNET

How to Succeed in Cyberbusiness



When he got laid off and found himself at home with his infant son, Peter Baylies hit on the idea of creating a newsletter for the other 2 million fathers staying home with the kids. Now it's on the Web (http://www.parentsplace.com/readroom/athomedad/index.html) and producing income.

are to be believed, it's a direct pipeline to more than 18 million consumers in the U.S. and Canada. Web watchers forecast a future goldmine. Simba Information Inc., a research firm that monitors the online industry (**http://www.simbanet.com/**), predicts in its report "The Electronic Marketplace 1995" that more than $5.8 billion will be spent in cyberspace by the year 2000 (the figure includes both software and services related to the Internet). Of that figure, $4.1 billion is expected to go toward online transactions (e.g., the sale of hard goods, clothing, flowers, etc.). Still, probably the main people making big money right now are those dangling the letters I-P-O in front of investors.

That doesn't mean that the average Joe or Josephine isn't cashing in on the new medium. A growing community of regular folks — from the proverbial "two guys with a garage band" to mom-and-pop shops on Main Street — are starting to break ground with their online ventures. None are printing money just yet, but each is claiming success in his or her own unique way.

The lucky ones are re-porting modest profits using two proven Web business models: advertising and product sales. Others, while not getting rich, are making enough money to give up their day jobs. And those with technical savvy are finding unexpected opportunities in Web design, or partnering with venture capitalists who invest in their sites.

The key to their successes? Being a good consumer, knowing what makes people tick, and providing what can't be found quickly and easily off-line. The need for this kind of customer awareness has led to predictions that 1996 will be the entrepreneur's year to shine online. Says Scott Nelson, a research director with the Gartner Group, a Stamford, CT-based

Tip #3

Price is No Object.
If you find the right niche, consumers will pay anything for your product. The Bike Pedalers site (http://www.inetnebr.com/bikeped) is a good example. "They thought they'd make a million selling cheap bikes online," Daniel Janal, author of *101 Business You Can Start on the Internet* (Van Nostrand Reinhold, 1995), says. "They found out users really wanted the $3,000 titanium bikes that you can't get at Wal-Mart." For most other goods, though, says, Scott Nelson, research director of the Gartner Group, a Stamford, CT-based information services consulting firm, "The most popular price point is $19.95."

–Laurie Berger

children with DIABETES

Created as a labor of love by the father of a diabetic girl, Children With Diabetes (http://www.castelweb.com/diabetes/) is now a thriving business.

information services consulting firm, "There's a window of opportunity for small businesses because they can move faster than big firms, which are still trying to figure out their Internet strategies," he says. "The Internet is content-poor," he continues. "This year and into 1997, any entrepreneur who creates something of value will have a commodity that will be in great demand — and big firms will pay a good price to get it."

The net's evolution supports that logic. Last year, companies that developed browsers and other Internet tools made it big. This year's success stories will include services, like Yahoo! (**http://www.yahoo.com/**) and Excite (**http: //www.excite.com/**), which make the Internet more valuable to users. Next year, experts are betting on content and services that appeal to special interest groups. I-Village's wildly successful Parent Soup (**http://www.parentsoup.com/**), which capitalizes on the current online parenting craze, is one example of that.

"As the Internet hurtles toward becoming a mass medium, the things that will do well will be those that address the average consumer," says Donn Davis, president of Tribune Ventures, a division of the Chicago Tribune company (**http: //www.tribune.com/**).

Designing and maintaining free home pages for members helped the Home Office Association (http://www.hoaa.com/) increase visits to its home page.

By the time you read this, the venture capitalists will be trawling cyberspace for the next Netscape (**http://home.netscape.com/**). And they may have plucked some of their new "rock stars" from the ranks of ordinary people. It's a fabulous opportunity, asserts Davis, whose firm puts a premium on "smart people with good ideas who can execute quickly. Our twenty-four-month strategy is a bet on the net."

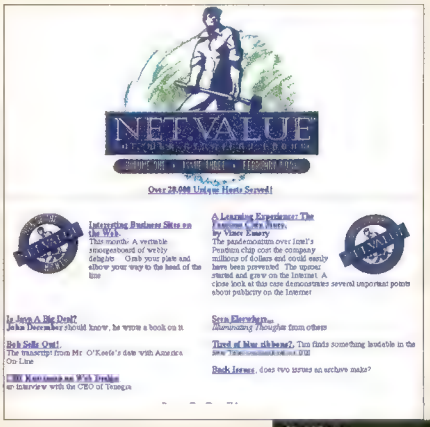
So what's working? We scoured cyberspace for examples of who's making money and how they're doing it.

Niching It Out

What are people thinking about when they brush their teeth? What do they obsess about in their spare time? Knowing what motivates consumers helps determine what will succeed online. And the best place to start is with yourself.

Hank Adams and his Northwestern business school buddy, Eric Carbone, are avid sports fans. They were frustrated by their inability to find good coverage of their college teams when they moved out of town. They hit on an idea — create a site for displaced fans. "We knew sports on the Web was enormous, but intentionally looked for a different niche than ESPNET SportsZone (**http://espnet.sportszone.com/**) or Starwave (**http://www.starwave.com/**)," explains Adams. "We concentrated on what we knew best."

Extreme Fans was born, and America Online snapped up the idea for its entrepreneurial Greenhouse program, which provides seed money for dual AOL areas and Web sites. But instead of relying on conventional sport writers for coverage, Adams and Carbone enlisted fans as cub reporters. They hit a home run. Now averaging 10,000 visits per day, the site (keyword: Extreme Fans) generates enough AOL user revenue to maintain Extreme Fans full-time and support Adams and Carbone's sports habits.



Net Value (http://owl.com/netvalue/) is a site designed to "give something back to the Internet community," says creator Tim McEachern. It's also garnered 100,000 accesses per month and lots of publicity.

Not everyone's great idea becomes a Cinderella story. But for Peter Baylies, that didn't matter. Two years ago, the former executive of Digital Equipment Corporation found himself out of a job, and at home diapering his infant son. When the isolation started getting to him, he created the newsletter At Home Dads (**http://www.parentsplace.com/readroom/athomedad/index.html**). But it was born not on the kitchen table, but on the kitchen floor, where he plays with his son. Rich in content, the site includes personal accounts of how readers juggle Junior and the home business, in-depth surveys, and an e-mail network of 200 dads that has been responsible for physically connecting parents and children in local playgroups.

In filling Baylies' own unmet needs, At

Tip #4

Get a Domain.

Sure, it costs a hundred bucks to register, plus $50 per year, but it's worth it (see *The Net* June 96, pages 54-55). For one thing, it makes your business much easier to find on the net. If someone knows your company is called "Widgets by Sue," she could type http://www.widgetsbysue.com and bang, you have a customer. Contrast this to something like: http://www.boring.com/themasses/~widgetsbysue.

Makes one look like small potatoes.

For information about registering, visit http://www.internic.net/, or contact your service provider.

–Jim Burton

Tip #5

Hype It!

Get listed on search engines and directories like Yahoo! (http://www.yahoo. com/), Excite (http://www.excite. com/), and Alta Vista (http://www.altavista.digital .com/). This doesn't cost anything except time. There are also several sites, like Submit it! (http://www.submit-it.com) and The PostMaster (http://www.netcreations.com/postmaster/) that announce your site for free. And several outfits, like PressXpress (http://www.cybercal.com/getagift/PressXpress.html) and WebPromote (http://www.webpromote.com/), help you create electronic press releases.

–Laurie Berger

The PostMaster (http://www.netcreations.com/postmaster/) is a free service for announcing your site.

Tip #6

Think Speed.
Customers appreciate sites that don't require hours of art downloads. Remember, most people still have slow access to the Web, especially those millions of America Online and CompuServe customers. Keep image sizes under 40k, and don't let pages get longer than two or three page lengths. If you want a large picture on the site, use a small thumb-nail version as a button the viewer presses to see the whole thing.

–Jim Burton

Jim Zook
Illustration & Design

Cool art is at the Zook site (http://www.protel.com/~zook/zookhome.html), but it took forever to display.

little concern about the money they can generate. But a select group of sites, usually the biggest, fanciest, or first-out-of-the-box, have inadvertently stumbled into the limelight.

Mr. Brown's Movie Reviews (**http://www.tripod.com/userland/M/MrBrown/**), a modest site by 19-year-old UCLA student Michael Dequina, is poised for takeoff. With its weekly Movie Report newsletter, film reviews, industry chatter, links to other movie sites, and homage to Quentin Tarentino, Dequina's site has developed an instant, and unexpected, following. Already, more than 10,000 hits have been recorded in Mr. Brown's short, four-month life. And while this sudden popularity has piqued the interest of potential employers and advertisers, the film critic has only gotten one minor bite. E-Ads (**http://www.eads.com/**), an electronic space seller, pays Dequina five cents every time someone clicks on its advertisers' banners. Chump change, as far as he's concerned.

Home Dads hit a nerve with his peers. Soon, some of the media latched on, calling it "the best thing since disposable diapers." The venture, which now includes a print and electronic newsletter as well as the At Home Dad As-sociation, isn't making Baylies rich. But it produces enough income — mostly from news-letter subscriptions — to spare Baylies from looking for a new job.

Two business school buddies – Hank Adams and Eric Carbone – couldn't find good coverage of their college teams when they left Chicago, so they created a site for displaced sports fans: Extreme Fans, now on America Online.

Developing a Cult Following

It's no secret: Cyberspace is *the* place for fans to congregate. Sites where Dilbert lo-vers can order T-shirts, or unknown garage bands, can build a following, have sprouted like weeds on the Web.

Many are vanity pages that pay tribute to favorite idols or objects of obsessions, with

Dequina knows he'd be doing better if it weren't for another budding Siskel who got there first. The Teen Movie Critic (**http://www.dreamagic.com/roger/teencritic.html**) is a slicker, more graphically sophisticated site. Run by Roger Davidson of Minneapolis, it has been stealing the show, says Dequina, in part because it features "cool" photos of Davidson, a searchable database of video rental stories, and a bona fide rating system.

Cyberbusiness Success

Whether you operate a shop on Main Street or one in your dreams, opening a "branch" in

Tip #7

Talk Back.
If you don't have discussion, live chat, e-mail, or other interactive features, forget it. No one will come – or revisit. When the Home Office Association of America (http://www.hoaa.com/) launched its new site, no one came. The simple act of adding an e-mail application form brought three to 15 new members each day.

More sophisticated approaches involve e-mail pals for children, interactive contests and treasure hunts, talent searches, and live forums. Also, providing either the best – or the most – links to related sites encourages repeat visitors.

–Laurie Berger

Tip #8

Think Twice About Netscaping.
Yes, we all know that Netscape is the coolest browser around, and that you can do neat things like tables. But the sad fact is a lot of people don't or can't Netscape (yet). If you're thinking, "Too bad for them, I want my site to look as cool as possible," don't. There are millions of potential customers on America Online who will be frustrated by your site. One solution is to provide Netscape and non-Netscape versions of your pages.

–Jim Burton

Tip #9

Update Incessantly.
One hour can be an eternity in cyberspace. That's why some of the most successful sites change each hour, sometimes each minute. If you don't have the resources to refresh content this regularly, make sure you change something at least once a week – and let people know it. "The biggest bummer is finding a really cool site and coming back a month later to find the same old stuff," says Kara Berlich, spokesperson for Tripod (http://www.tripod.com/), a site that updates its "tools for life" every few hours.

–Laurie Berger

Tip #10

Handle the Traffic.
Let's say you're running your own server connected to an ISDN line. Let's say your site becomes moderately popular. In Internet terms, this could mean hundreds of hits per hour. Now, ISDN is fast, but it just can't handle that amount of traffic. People will not be able to connect, or they'll just get tired of waiting. They'll look elsewhere.

So if you can't afford to get at least a fractional T1 line – and honestly, who can? – it's better to rent server space from someone with a T1 connection.

–Jim Burton

cyberspace can take a business beyond its physical boundaries. The digital domain has allowed even the tiniest retailers to lure worldwide customers to their remote outposts. It has helped downsized executives and down-and-out divorcees start up new businesses from their kitchen tables. And it has enabled small entrepreneurs with big plans to build entire virtual malls, single-handedly.

What's more, you don't have to be a pushy salesperson or a savvy retailer to build a business in cyberspace. Jeff and Penny Gift, who describe themselves as "a couple of introverts" from North Carolina, found that out. They started their virtual business, Schoolhouse Videos & CDs (**http://www.schoolroom.com/**), one year ago, and appear on the verge of breaking even.

Rather than trying to compete with local video stores, they targeted the instructional market, based on the growing popularity of home schooling. Offering premium customer service, including no-hassle returns, 30-day guarantees and an online/off-line ordering service, their site is now generating enough greenbacks to let Penny quit her day job.

The Gifts, like others, found that consumers are actually willing to buy certain goods online. Sales in areas like travel, flowers, computer hardware and software, books, videos, CDs, T-shirts, and food, for instance, are brisk. Why? Because consumers feel comfortable buying these products virtually sight unseen. (How much different are roses going to look in real life?) The videos also come at a Web-friendly price — $19.95.

Driving business to an existing retail outlet requires a different tactic. When Mary Jane Nesbitt opened the cyberbranch of tiny Nine Lives Quality Consignment Clothing (**http://www.los-gatos.ca.us/nine.html**), she put her entire inventory of "gently" used designer clothing online. Then she created an army of intelligent personal shoppers, ready to be deployed by customers who'd submitted electronic profiles of their clothing preferences.

When an item comes in that matches a person's profile, an e-mail automatically goes out announcing the arrival of, say, a little black Anne Klein dress. "Would you like us to hold it for you?," it will ask. Nesbitt explains: "You'd be amazed at the extra business this has generated, not only from the huge clientele within a fifty-mile radius, but from business travelers and tourists headed for Silicon Valley. This is business I would never have gotten."

A 10 percent discount online coupon that users can print out has added another incen-

Tip #11

Keep It Simple.
When creating your site, design for the lowest common denominator. There's nothing worse than losing visitors to slow-moving graphics or jumbled text that doesn't support Netscape. Give users a choice of paths, graphics, and bandwidth. "Shockwave and Java are cool, but many of the good sites are down and dirty – and they work," says Janal.

–Laurie Berger

Tip #12

Protect Your Customers.
Tell customers not to send their credit card number or any other sensitive information via non-encrypted e-mail or non-secure forms. As much as you want their business, you don't want to get sued. Tell concerned clients to call your (hopefully) toll-free number for transactions.

–Jim Burton

Tip #13

Don't Get a Life.
Anyone who's ever launched a site tells the same story: Get ready to work 24 hours a day, seven days a week. There also has to be a passion about your content. "The people we've seen succeed at this are online fanatics. They have interactivity running through their veins," says Danny Krifcher, vice president of original programming for America Online.

–Laurie Berger

Tip #14

Trust Me.
Unless you're offering a brand name, it's hard to develop immediate trust online. That's why successful cyberpreneurs do the opposite – they emphasize unique strengths like personal attention, family business ethic, and a high level of customer service. Andy's Garage Sale (http://www2.pcy.mci.net/marketplace/fingerhut/) is now one of the most popular storefronts on marketplaceMCI because Andy is a likable guy next door and the "garage" is a venue familiar to net heads. The site was conceived and designed by Proxima, Inc., a McLean, VA.-based firm.

–Laurie Berger

Tripod (http://www.tripod.com/) has seen membership soar as a result of handing out free home pages to anyone who signs its registration book.

Paying special homage to Quentin Tarantino and taking advantage of the thirst for film trivia, Mr. Brown's Movie Reviews (http://www.tripod.com/userland/M/MrBrown/) is generating interest.

The creators of the Schoolhouse Videos & CDs site (http://www.schoolroom.com/) targeted the home schooling market to create an income-generating site.

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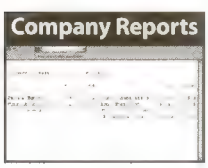

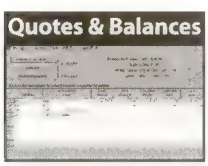

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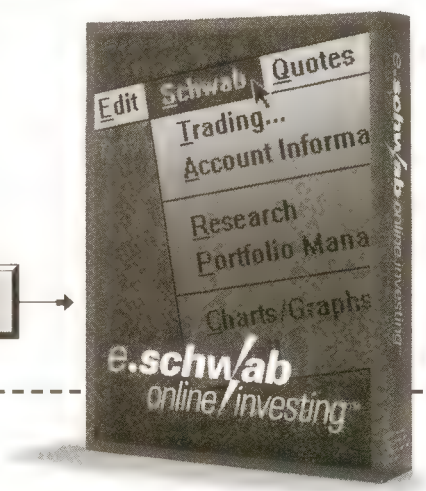

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Next Month:
More Ways to Make Money On the Net

tive to nudge people her way. The result? Business has been growing 30 to 40 percent annually, while three Main Street competitors have come and gone.

Tip #15

Service, Service, Service.
Providing better, if not the best, customer service goes a long way toward establishing a reputation online. The most successful ventures include 30-day guarantees, 24-hour response to inquiries or orders, daily inventory changes, and advertisers' daily rotating specials.

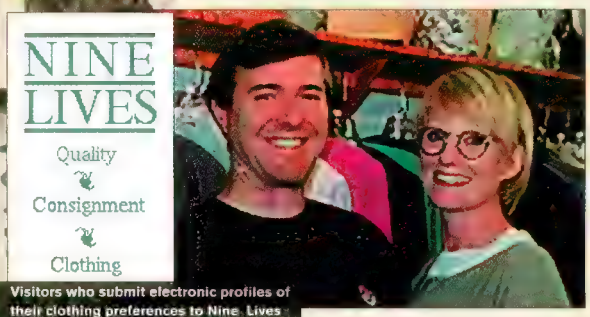
–Laurie Berger

Altruism Pays Off

If you really want to make waves in cyberspace, there's one sure way to do it: Give stuff away. Free Web pages, free newsletters, free gifts, and free advice support the Internet tradition of open access.

Whether you're selling products, services, or yourself, offering a valuable freebie gets the attention of finicky surfers. Even the smallest companies report unparalleled success in luring advertisers that would have never given them a first look. Most importantly, the goodwill it buys almost always opens doors — and wallets.

When the Home Office Asassociation (**http://www.hoaa.com/**) offered to design and maintain free home pages for members, it saw enrollment and visits to its home page jump dramatically. Tripod (**http://www.tripod.com/**), a mega-site offering "tools for life" to college graduates and beyond, also hands out free home pages to anyone who signs its registration book. With membership now overflowing at more than 6,000, Tripod is mulling ways to handle the instant success. Then there's our cartoonist, Gabe Martin, who plunked down $1,000 from his own savings account for a contest designed to attract quality links to his site.



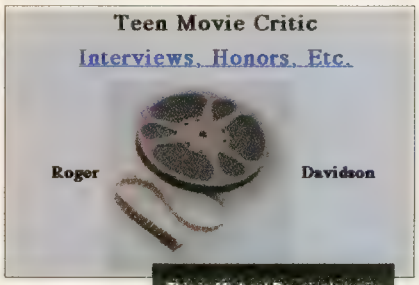
Visitors who submit electronic profiles of their clothing preferences to Nine Lives Quality Consignment Clothing (http://www.los-gatos.ca/us/nine.html) receive e-mail notices when items of interest arrive at the store. This has helped generate extra business for the company.

That said, no one knows the merits of Web generosity better than Jeff Hitchcock, a co-founder of San Francisco-based Castleweb. Another victim of corporate downsizing last summer, Hitchcock bought a copy of O'Reilly and Associate's WebSite software (**http://www.ora.com/**) to build a home page for his diabetic daughter.

Packed with nearly 500 pages of clinical data, doctor tips, e-mail pen pals, kids' chat, a friend search, and a picture of daughter Marissa, Children with Diabetes (**http://www.castleweb.com/diabetes/**) is now considered the choice site on the subject, eclipsing the National Juvenile Diabetes Foundation's modest offerings (**http://www.jdfcure.com/**).

What started as a labor of love in July 1995 soon became a thriving business. By March of 1996, Children With Diabetes registered 70,000 hits a month, and an average online session lasted 30 minutes. That landed the site its first sponsorship — from a division of Johnson & Johnson at about $3,000 a month.

This hurdle cleared, Hitchcock expects five to six additional sponsors to eventually follow, and for the site to break even by the time you read this. What used to be a "huge sink" is now bringing in the bucks, says Hitchcock, who sheepishly says black jelly beans and Coke kept him going through the start-up. "It wouldn't have been as successful if I hadn't started it for free."



This is Michael Dequina's main competition: The Teen Movie Critic (http://www.dreamgic.com/roger/tenncritic.html) features cool photos, a searchable database of video rental stores, and a bona fide rating system.

Altruism is catchy, even for established Web designers. Tim McEachern of One World Interactive last year created Net Value (**http://owi.com/netvalue/**), a thoughtful site about strategic uses of Web tools, purely, he says, "to give something back to the Internet community." Part e-zine (a recent article focused on Elaine Rubin, described as "one of the most important thinkers in online marketing"), part meta-list (it features lists of the most interesting business sites), the site now reaps 100,000 accesses per month and reams of publicity, just from one posting to a Usenet group. McEachern says that he's received offers from some big companies to buy the site. But he's holding out — to establish the brand and its integrity before a "big company starts tinkering with it."

All in All

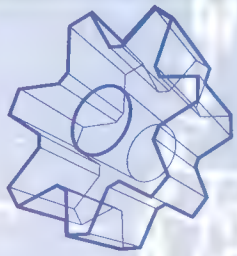
At the end of the day, the true test of Web success comes down to personal satisfaction: Even the most hard-driving entrepreneurs are not in it just for the bucks. Of the 45 people interviewed for *101 Businesses You Can Start on the Internet* (**http://www.janal-communications.com/**), author Daniel Janal says, "No one's making great amounts of money, but most said they'd do it all over again. They're in for the thrill."

Tip #16

Beware of Imitators.
If you've followed all the advice so far, there's still nothing stopping anyone from matching it – or bettering it – online. The time to tackle this possibility is before, not after, you've launched your site. Scott Nelson, research director of the Gartner Group, says: "Ask yourself, 'If I were the competition, how would I put this site out of business?' Then prepare for that to happen."

–Laurie Berger

The Net's Lexicon



Audio Streaming
An application that provides "audio on demand." That is, it lets your computer play sound while the sound file downloads, rather than forcing you to wait for the entire file to arrive before play begins.

Baud
Measurement of the data transmission speed of a telephone or network.

Bandwidth
A less jargony way of referring to BPS, bandwidth is the measurement of how much information can be transmitted at any given time. More specifically, bandwidth is the "width" of the pipe through which information travels.

BBS (Bulletin Board System)
A dial-in service that usually provides information, software, and technical support on a focused topic. Many community-based BBSs now offer Internet services to their members.

Bookmarking
A way of storing pointers to Web sites in your browser.

BPS (bits per second)
Measurement of the speed at which data can be transmitted over a telephone or network line.

Browser
A generic term for an application that displays Web pages. Most browsers now provide the capability to view Web pages with graphics, tiled backgrounds, and print from the Web, and access other Internet protocols such as e-mail, Gopher, Usenet newsgroups, and file transfers.

Client/Server
A relationship between programs running on separate machines in a computer network. The server is a provider of services, and the client is a consumer of these services. For example, Eudora or Pegasus is a client for e-mail that "talks" to SMTP, the e-mail server. Many clients can talk to a server at once.

FAQ (Frequently Asked Questions)
A FAQ is generally a list of questions and answers about a specific topic. Most newsgroups have FAQs that you should read before posting messages. These are archived at **ftp://rtfm.mit.edu**.

FTP (File Transfer Protocol)
The Internet protocol that allows the viewing, downloading, and uploading of files on remote computers.

GIF (Graphic Interchange Format)
A bit-mapped color graphics file format. GIFs are ideal for Internet use because they can be read on all platforms, and the format uses an efficient compression method. GIF is the preferred file format to use if you want to put a graphic (as opposed to a photo) on a Web page.

HTML (HyperText Markup Language)
The standard for adding tags to a text file so that the file is able to be interpreted by a Web browser.

HTML Editor
A program that helps you add HTML tags to a text file.

HTTP (HyperText Transfer Protocol)
The protocol that Web servers and browsers use to communicate with each other.

Icon
A small graphic representation of an object or idea.

Interlaced GIF
A GIF that is written so that when downloaded, it looks at first like it is out of focus, then it gradually comes into focus.

Internet Phone
An application that runs over the Internet and provides point-to-point audio between two people in real-time. People at each end must have a microphone, speakers or headphones, sound equipment in their computers, and software to compress and decompress the speech signals to use this application.

IP Address
The number that identifies your machine as unique on the Internet. Without it, you cannot use any Internet protocols. Multiple users *can* have the same IP address. For example, all America Online users have the same IP address.

IRC (Internet Relay Chat)
The Internet's version of a CB radio, Internet Relay Chat lets you join a channel and converse with other folks on the same channel in real-time, through text-based typing.

ISP (Internet Service Provider)
A company that provides access – usually dial-in – to the Internet.

Java
An object-oriented, cross-platform programming language, similar to C++ and SmallTalk, that is designed for building applications for the Internet. It was developed by Sun Microsystems. More information is available at **http://java.sun.com/**.

JPEG (Joint Photographic Experts Group)
A file format that uses a compression technique that can reduce the size of a graphics file by as much as 96 percent. JPEG is the preferred file format to use if you want to put a photograph on a Web page.

MIDI (Musical Instrument Digital Interface)
A standard that lets electronic musical devices communicate with each other. Music stored in MIDI format contains instructions for playing the music, rather than the digitized audio signal itself; this drastically reduces storage requirements.

MIME (Multipurpose Internet Mail Extension)
Originally an extension to e-mail, MIME extensions identify the transmittal of non-text data.

Modem
A device that translates computer signals to analog signals suitable for sending across phone lines.

PICT
The default graphics format on Macintoshes.

Router
A specialized machine that runs various protocols to direct network packets from one segment to another. Routers are the glue that holds the Internet together.

Shareware
Software distributed via the honor system. You can download shareware from the net and try it out. If you keep the software, you are expected to pay the shareware fee.

TCP/IP (Transport Control Protocol/Internet Protocol)
The protocol suite that makes Telnet, FTP, e-mail, and other services possible among computers that aren't on the same local area network.

Transparent GIF
A GIF that has one of its colors set to be transparent. When displayed against a background tile or color, the image will appear to "float" on it.

URL (Uniform Resource Locator)
A URL contains the location and access method of a resource on the Internet.

Usenet Newsgroups
Subject-specific discussion forums that are stored on remote computers.

Videoconferencing
Remote communication employing both video and sound.

World Wide Web
World Wide Web describes the nature of the hypertext system on the net. Rather than linking you to new sites in a linear manner, hypertext creates a web of connections.

How to Communicate on the Internet:

A Primer for Windows 95

by Andrew Mundy

You've been enticed by the siren's call of the Internet.

You've subscribed to an Internet Service Provider.

You've sent numerous e–mails to your friends.

Countless hours have flown by as you've browsed to your heart's content.

But now you've grown tired of merely sending your friends letters, and having to patiently await their replies. You want more. You want to hear their voices.

Yes, you could just pick up the phone and call, but your friends are 2,000 miles away, and you're sick of paying long-distance rates. Better yet, what you want to do is have a face-to-face conversation. Well, this isn't a phone commercial promising "you will." This article will delve into existing technology that you can download or purchase right now for the Windows 95 operating system.

If we use the metaphor of your computer being the person with whom you wish to communicate, there are several actions your computer will need to be able to perform: It will need to speak, hear, see, and process the information it sends and receives. Making your computer perform these actions can be accomplished through devices and software used in Internet communications. The device to enable speech is a sound card. The ears of your computer are a microphone and an Internet phone software package. A video camera and a video capture board, along with some videoconferencing software, will endow your computer with the gift of sight.

First, let's discuss sound cards.

Install a Sound Card

There are many sound cards on the market, and most bundled computer packages come with a sound card pre-installed. If you bought one of these, you're set to go.

If you want to upgrade, though, or if you don't have a sound card, here's how to install one.

Decide Which Sound Card to Purchase

The standard and most popular one on the market is the Sound Blaster series from Creative Labs (**http://www.creativelabs.com**). The hottest sound card in this series is the Sound Blaster AWE32.

This card is a 16-bit board that provides CD-quality sound, plug-and-play capability equipped with an IDE CD–ROM interface, an Advanced Signal Processor chip, and an EMU8000 AWE Synthesizer chip. The card provides options to upgrade with a Wave Blaster II and a SIMM RAM upgrade module.

The SoundBlaster 16 is good enough for your Internet communications, but if you want your multimedia and games applications to sound their best, you'll want to go with the 32AWE.

The system requirements for the Sound Blaster 32AWE are:

- *IBM AT, 286, 386, 486, PS/2 (model 25/30), Tandy AT or 100 percent compatibles.*
- *EGA or VGA*
- *5 MB of hard disk space for SB16 software*
- *Computer Bus Size: 16 bits*
- *AD/DA Resolution: 16 bits*
- *Output Power (Max.): 4 Watts @ 4 Ohms PMPO*
- *FM Synthesis: Yes*
- *Wave Synthesis: Yes*
- *Built-in Stereo Power Amplifier: Yes*
- *Built-in Digital/Analog Mixer: Yes*
- *Plug and Play: Yes*

Install the Card Into Your System

If you're upgrading your sound card, it's a good idea to disable your old card and its drivers before you proceed, in order to let the plug-and-play features of Windows 95 do their thing.

The installation procedures, utilizing Windows 95 plug-and-play, are simple and easy:

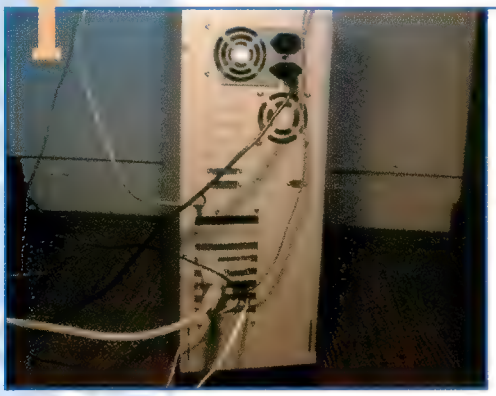
a. After turning off and unplugging your system, remove the cover of your computer and look for a free, 16-bit ISA expansion slot on the motherboard.

b. Remove the screw and the metal plate on the free slot.

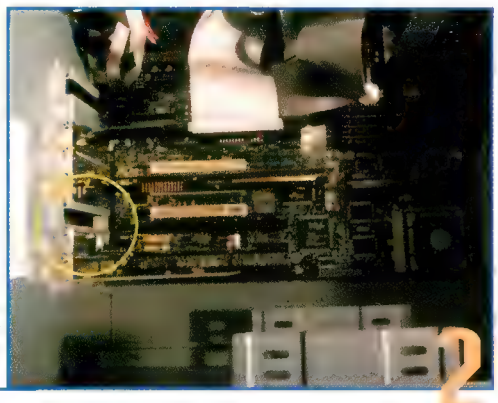
c. Align your card's 16-bit slot connector with the expansion slot and gently lower the card into the free slot.

d. Secure the card to the expansion slot with screws from the metal plate, and put the cover back on your computer.

e. Download from Creative Labs' FTP site (**ftp://ftp.creaf.com/pub/creative/files/awe**) a new driver for your sound card. You will need to do this, regardless of the type of card you have, in order to enable it for full-duplex or simultaneous conversations on your Internet phone. Download the awebeta driver from



This Pentium is ripe for a sound card upgrade. After removing the cover of your computer, touch the metal casing of the power supply, which should be clearly labeled. Your computer should still be plugged in to allow static electricity that you've accumulated to disperse safely down the grounded power cord – and not onto any of your sensitive boards. *Then* unplug the power cord. Electroshock therapy is not the order of the day – for you *or* your machine.



You'll need an open expansion slot into which to install your sound card. Remove any assemblies that are blocking access, and prepare to maneuver in the tight space awaiting.

Sound Card Installation

TROUBLESHOOTING:

Hopefully, by now, your sound card is working properly, and you've applied the new driver to your system. Usually, the only difficulty you might encounter is an interrupt conflict between the sound card and another system resource, such as your modem. Many of the older sound cards use jumpers to determine which interrupts they will use. These are referred to as *legacy cards*.

Interrupts are the hardware routines used to allow an efficient rate of data transfer to your CPU from your ISA boards, as well as other peripheral devices. Jumper settings are used to determine the proper configuration of your ISA boards, and are located on the boards themselves. If there happens to be an interrupt conflict between your ISA cards, usually neither of them will function properly. Before plug-and-play was introduced, you could only reserve system resources by manually changing the settings of some jumpers on a non–plug-and-play card. This can be difficult, since you have to understand how the hardware settings coincide to the system resources that your card requires. It can also be very tedious, since you may need to change the jumper settings several times before your card can be configured without any hardware conflicts.

With the advent of plug-and-play, the PC, hardware cards, drivers, and the operating system can now work together without such user intervention. If you do have problems with interrupt conflicts, you can look to see where the conflict might occur by opening a DOS prompt and typing "MSD" at the C:\prompt. This is Microsoft's System Diagnostics program. In this program, you cannot reconfigure your system resources or change the interrupts, but you will be able to see what is being used.

the FTP site onto a floppy, and extract the files.

f. Open your control panel, and then your system directory. Go to the device manager. There, you will double-click the sound card you have and choose "driver." Change the driver by selecting "have disk" and pick the driver you just expanded on the "A:/drive." Reboot your system. You will now have full-duplex communications for your sound card. If problems persist, contact your sound card manufacturer.

The hardware settings for most of the Sound Blaster products are:

- **Interrupt (IRQ): 2, 5, 7, 10 — Plug-and-Play**
- **8-bit DMA Channel: 0, 1, 3 — Plug-and-Play**
- **16-bit DMA Channel: 5, 6, 7 — Plug-and-Play**
- **Joystick I/O Address: 200 Hex — Plug-and-Play**
- **Audio I/O Address: 220, 240, 260, 280 Hex — Plug-and-Play**
- **MPU-401 I/O Address: 300, 330 Hex — Plug-and-Play**
- **FM Synthesizer I/O Address: 388 Hex — Plug-and-Play**
- **Wave Synthesizer I/O Address: 620, A20, E20 Hex — Plug-and-Play**
- **IDE Interface Port: Secondary, Tertiary, Quaternary — Plug-and-Play**
- **IDE Interface IRQ: 10, 11, 12, 15 — Plug-and-Play**

The default settings are usually set at:

- **Interrupt (IRQ) 5**
- **8-bit DMA Channel: 1**
- **16-bit DMA Channel: 5**
- **Joystick I/O Address: 200 Hex**
- **Audio I/O Address: 220**
- **MPU-401 I/O Address: 330 Hex**
- **FM Synthesizer I/O Address: 388 Hex**
- **Wave Synthesizer I/O Address: 6?0 Hex, dependent upon Audio I/O address**
- **IDE Interface Port: Tertiary**
- **IDE Interface IRQ: 11**

Each system will be different, so consult your system BIOS and MSD, or your Windows 95 system directory, to determine the correct settings. If you do need to change the settings on your Sound Blaster, you will need to contact Creative Labs' FTP site to download its Creative PnP Configuration Utility (CTCU) (**ftp://ftp.creaf.com/pub/creative/files/misc**).

Now, you're ready to set up the ears of your system to enable you to talk over the Internet.

Internet Phones

Add a Microphone

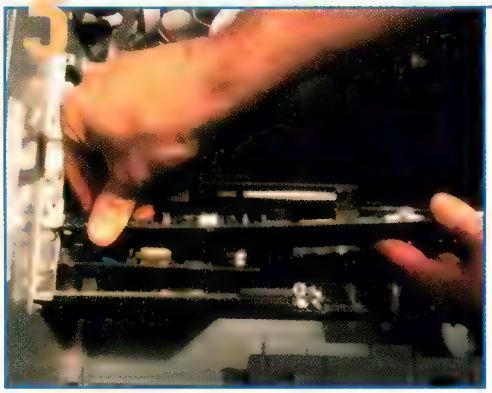
Once you have a sound card that's working correctly, adding a microphone is as simple as plugging it into the line-in port of your newly installed sound card.

There are myriad microphones on the market (many come bundled with computers or sound cards). I, for one, have a Peavey microphone (**http://www.peavey.com/prod/mic/micbreak.html**), which I own for my musical endeavors.

Now you are ready to buy or download an Internet phone. Internet phones belong to an ever-expanding field of Internet applications that allow you to make long-distance calls at the price of a local call just by connecting to your Internet service provider. Internet phones, at least for now, do not offer the same high quality you get when you make a call with a regular telephone, and you'll also find that you won't get the best results from this technology unless you are using an ISDN bandwidth. But don't let that stop you, because there are a few Internet phones on the market today that work quite well using a standard 28.8 modem.

FYI:

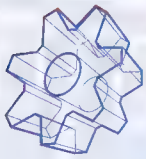
Bandwidth is the rate at which information is sent and received over telecommunications networks. For example, a 28.8 modem can send and receive information at a bandwidth of approximately 3 kilobytes per second, while that of an ISDN line is roughly 8k.



Here's the trickiest part (though the whole operation is rather easy): Align your card's connector with the expansion slot, and gently lower the card into its new happy home.

Your sound card slid in easily, but you still need to put the screw back in.

Sound Card Installation



Deciding Which Phone to Download or Purchase

While I was researching this article, I decided to test Internet phones for ease-of-use in installation and operation.

I also persuaded a friend in Los Angeles to set up on his computer the same software and hardware I have at my home in San Francisco. We both have 133MHz Pentium computers with Sound Blaster 32AWE sound cards and 28.8 Hayes compatible modems. We agreed on a set time at which we would try to call each other. Finally, we talked to one another using several of the different phones.

This is what we found:

If you don't have a full-duplex sound card, the sound quality of the conversation ends up being similar to the quality you get on a CB radio. The difference between half- and full-duplex is that full-duplex allows you and your friend to talk to one another simultaneously, while half-duplex only permits one person to talk at a time. So you definitely want to set up a full-duplex system.

There are major differences between the Internet phones and the regular telephone. One is that when you use an Internet phone, your voice is converted to a digital signal that is compressed and sent in packets over the Internet. This might sound like a good thing, considering the quality of digital signal processing in the recording industry, but the catch is that the bandwidth for those packets of voice information is very low. Even over an ISDN line, which has more than double the bandwidth of a 28.8 modem, the problems commonly encountered are a loss of packets and broken-up voices.

Another difference is that Internet phones use a network or combination of networks to transmit a call. This also may cause your conversations to break up due to repeated routing. For instance, you may be calling your friend in Los Angeles, but your call may have to go through Australia to get there. There is always a delay of the voice transfer when you call someone over the Internet because your voice needs to be compressed from analog to digital, and decompressed vice versa using a program routine called a CODEC (compression\decompression) for short. To handle this, many I-phones use a characteristic called interpolation to fill in the gaps. What this does is sample your voice signal as you speak, and then smooth it all out before it reaches your recipient.

There are several similarities between many of the Internet phones, one of which is that most only allow you to talk to your friends on dedicated phone servers called reflector sites. These sites resemble chat rooms, in that they usually include specific discussion topics, and anyone who is connected to that particular server has the ability to call you.

So, to call my friend in Los Angeles, I had to connect to the server of the phone we were using, then find his name on a list of all the other people who were also connected. This hardly makes for private conversation.

An unfavorable similarity in all the Internet phones is that there are no standards for this technology. This causes problems. In order to talk to your friends over the Internet, you will all have to be using the same I-phones.

The Internet phone I decided to use is the WebPhone by Netspeak (**http://www.netspeak.com/**). It will allow you to call your friend's IP or e-mail address directly. This works fine if that person does not have a floating IP server. The WebPhone allows up to four lines of communication, and if your party is not online, it will permit you to leave a message on his or her e-mail.

The interface for this phone is very intuitive because it looks exactly like a regular phone. It uses a low bandwidth to operate, so the quality of sound is the best I have heard of the other half a dozen or so I-phones I tested (see pages 35-38 for a list of Internet Phones to choose from).

A good resource for helping you determine which Internet phone is best for your needs is on the c|net site at **http://www.cnet.com/Content/Reviews/Compare/Wphone/**. The article there benchmarks the latest phones and describes how the technology works.

The technology for this application is still in its infancy, but it's getting better all the time. In fact, by the time this article is published, Creative Labs will have announced an integrated ISA board called the Phone Blaster. This card has a Sound Blaster 16, 28.8 fax/modem, full-duplex WebPhone by Netspeak, Internet access, and voice recognition. All of this will allow you to have your e-mail read remotely to you over the telephone; all you'll have to do is call up your computer and say, "Read new mail." But the best part about Creative Labs' integration of all of those components on one board will be that it will take up only one ISA slot.

Operating an Internet Phone

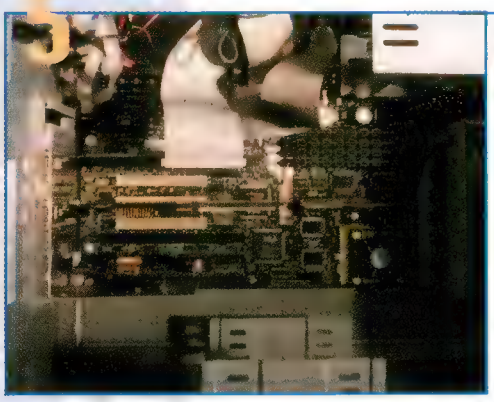
This is really easy. The Internet phones only need a sound card, microphone, and the software you choose in order for them to operate. Have fun!

Videoconferencing

The next stage of Internet communications is giving your computer eyes. The technology to do this is becoming much more available to the average person. This type of communication can be used with a 28.8 connection, but really needs a high bandwidth (ISDN or higher) to look and sound good.

There still aren't very many companies developing this technology at this juncture, so choosing the right software is not too difficult a process.

You'll need to download White



Your sound card is now firmly lodged in its expansion slot. You should always consult all of your appropriate installation instructions when connecting different pieces of hardware. PC hardware companies don't necessarily build their products with respect to each other's protocols.

Finally, connect the digital audio output cable from your CD-ROM drive into the audio input on the sound card. Without this cable, you cannot play music from audio CDs.

Sound Card Installation

Pine's videoconferencing software, Enhanced CU–SeeMe, from its site (**http://www.wpine.com/**). This application is affordable, and will allow reflector-type, as well as point-to-point, I-phone, and video communications. Once again, I persuaded my friend in Los Angeles to help me test this out.

As soon as we installed the software, we were ready to connect to anyone else who was using CU-SeeMe. Though we were able to see and hear them, we still needed a video capture board and a video camera before they were able to see us. So let's install those items before we proceed any further.

Install a Video Capture Board and a Video Camera

For the Windows 95 platform, you will need a non-overlay technology video capture board to hook up a camera to your computer. Once again, I used a video board manufactured by Creative Labs. Its RT300 video capture board is functional for CU-SeeMe, although it hasn't been certified as Win95-compatible. Creative Labs currently is in the process of improving its video cards, and plans to replace its entire line with new technologies by the end of the year.

To install a video capture board, use the same process you used to install the sound card.

Video Blaster RT300 is a single-step, real-time video capture and compression board, based on the Intel i750PE pixel processor. It has the capability to capture video from a number of sources, including video cameras, VCRs, and video disc, at a resolution of up to 320x240 @ 15fps (frames per second), or 160x120 @ 30fps, depending on the system used.

PAL, NTSC, and SECAM standards are supported and can be automatically detected by the software. Inputs for both composite video and S-Video are provided.

The system requirements for this card are:

- *IBM PC 386 DX33 and above*
- *4 MB system memory*
- *2 MB hard drive space, minimum*
- *16-bit ISA expansion slot*
- *MS DOS 3.1 or PC DOS version 5.0 and above*
- *Windows 3.1 or higher installed*
- *MS Video For Windows 1.1D and above*
- *Interlace- and Non-Interlace-Supported*
- *AD/DA Resolution: 8-bits resolution; sampling rate at 32 MHz*

This is a legacy board, which requires you to set jumpers. The default hardware settings are:

- *Interrupt (IRQ): 9, [10], 11, 12*
- *I/O Address: 280, 2A0, 2D0, [2E4], 340, 3A0, 3E0 Hex*

Install a Camera

Any video camera utilizing NTSC, PAL, or SECAM standards can be used. I have a color camera with a built-in microphone from Sycard (**http://www.sycard.com**), which was recommended to me by the customer service folks at White Pine. Unfortunately, this camera is only available from Sycard for a limited time. This camera is model M-A101Bus, manufactured by Panasonic (**http://www.panasonic.com**). Another good camera, coming from VideoLabs Inc., is called the FlexCam (**http://www.flexcam.com**).

Plug your camera, using RCA cables, into your new video board, and your Internet communications needs are fulfilled. Now your friends will be able to see you on the Internet.

The drawback to all of this is that after you have your video phone equipment set up, the best rate at which you'll be able to see your friends with CU-SeeMe is about 1 to 2fps over a 28.8 connection, and maybe 8fps with an ISDN connection. Regardless, though, you and your friends will be able to see each other.

I cannot stress the importance having the fastest connection possible. The faster the Internet connection, the better all of the communications solutions will perform. There is a potential here that cannot be denied. It probably won't take too much time before these types of communications devices come standard on every computer as modems become faster. ISDN lines and equipment are rapidly becoming cheaper and more accessible, and Internet service providers are continually lowering their prices.

This will allow more people to use the Internet as an even greater communication forum. Then their voices will be heard and their faces seen, bringing a human touch to what was considered only a few years earlier as a cold, inhuman environment.

Net Communications Lingo

- **ISDN** Integrated Services Digital Network
- **FPS** Frames Per Second
- **ISA** Industry Standard Architecture
- **NTSC** National Television Standards Committee
- **PAL** Phase Alternate Line
- **SECAM** Sequential Color and Memory
- **IRQ** Interrupt Request
- **DMA** Direct Memory Access
- **IDE** Integrated Drive Electronics
- **MPU** Micro Processing Unit
- **EGA** Enhanced Graphics Adapter
- **VGA** Video Graphics Accelerator
- **SIMM** Single Inline Memory Module

Finding Multimedia Plug-Ins, Sites Where You Can Use Them

While Netscape and Internet Explorer now support plug-ins (which negate the need for separate helper apps), there are still relatively few good plug-ins to accommodate multimedia. Here are the places to find 'em:

IUMA – *Mac, Windows, Unix*
http://www.southern.com/Southern/iuma-players.html

Earthlink Network & ISP – *Mac, Windows*
http://www.earthlink.net/nethelp/

Multimedia Helper Apps – *Mac*
http://www.mcps.k12.md.us/resources/multimedia/

Burnt Earth – *Windows*
http://www.scescape.com/software/win/sound.html

Then, visit here to test out your help apps.

For MPEG Video:
Primordial Soup's Animations
http://www.islandnet.com/~dretch/animations.html
Aspen Snowmass OnLine
http://www.infosphere.com/aspenonline/directory/video/index.video.html
Supermodel MPEGs
http://www.eeb.ele.tue.nl/mpeg/movies/models/index.html

For QuickTime:
QuickTime Architecture
http://www.nai.nl/www_riq/RiQ_home.html
The Balcony, QuickTime VR Theater
http://www.netproductions.com/balcony/

For Sound Files:
TV Soundtracks
http://themes.parkhere.com/themes/
60 Second Theater
http://www.well.com/user/eardrama/
Pseudo Online Radio Shows
http://pseudo.com/
Movie Sounds
http://www.moviesounds.com/

–Shel Kimen

Creating Low-Bandwidth Web Graphics

by Lynda Weinman

The Importance of Small

When measuring how "good" or "bad" a Web site is, one of the indisputable deciding factors is access speed, or lack thereof. It doesn't matter how compelling the content is, or how beautiful the images are; most of us click away from sites that make us wait too long. Some of the speed bottlenecks are attributable to slow servers, but the most common culprit is the site designer who doesn't understand how to make graphics as small as possible.

Computer graphic designers never needed to give much thought to the file sizes of their images before the advent of the Web. Consequently, even experienced digital artists may not know how to create graphics that are friendly to low bandwidths. What Web designers must realize is that the file size of a graphic directly relates to the speed with which it can be viewed over the Web.

A general guideline to follow is that every kilobyte worth of data takes approximately one second to download over the average Web viewer's modem.

GIFs and JPEGs

When authoring Web page graphics, there are two file formats to choose from: JPEGs and GIFs. "JPEG" stands for Joint Photographic Expert Group. "GIF" stands for Graphic Interchange Format. Remembering what the acronyms stand for is useful since they explain which file format is best suited for which type of image – JPEGs are best for photographs, and GIFs are best for graphics.

Both formats have become standard file types for Web delivery because they support efficient compression. Compression is not necessarily a fun or creative subject, but understanding a little bit about how it works can help authors of Web graphics make better decisions about converting existing files or scans for faster Web delivery. There are basically three types of images: photographs, graphics, and hybrids that combine both. We will study each type here. The original images were saved in the PICT file format and were 206 x 346 pixels at 72 dpi.

The three original images measured 206 by 246 pixels – all saved in RGB at 72 dpi in PICT file format:

- **The graphic is 110k.**
- **The hybrid is 187k.**
- **The photo is 231k.**

JPEGs "R" Us

In Photoshop, when you save in the JPEG file format, you have the option of saving at "Max," "High," "Med," or "Low" quality settings. Don't assume that using the "High" quality mode will ensure the best-looking image. The trick to making small Web graphics is to use every avenue possible to shave off as many kilobytes as possible. Here is a sample image saved at all four quality settings:

JPEG Max: It's 59k.

JPEG High: It's 41k.

JPEG Medium: It's 31k.

JPEG Low: It's 26k.

Here's is the original photo. It's 231k.

While you might have assumed the image would look best at the "Maximum" setting, notice that it is still quite acceptable at the "Low" setting – and it's less than half the size. The rule of thumb with JPEGs is: Don't make assumptions. Test the image at different compression settings to judge the image quality, and always try the lowest possible setting.

There's also a new type of JPEG compression called "progressive" JPEG, which was recently introduced by Netscape. Progressive JPEGs are credited with being up to 30 percent smaller than their regular JPEG counterparts. They also have the benefit of "interlacing." "Interlacing" allows an image to download in stages, meaning that a blurry or pixelated image downloads first, and then the full-quality image appears moments later. This can help with speed as well, since the end-viewer can see a preview of the graphic, and decide whether the image is worth waiting for. If you want the latest software that allows you to save in the progressive JPEGS file format, you can use a search engine such as **http://www.yahoo.com** or **http://www.altavista.digital.com**, and search for "progressive JPEG." The disadvantage to using progressive JPEGs is that they are only supported by Netscape 2.0. If you view them with any other browser, you'll see a broken image icon instead of an image. That's a pretty steep penalty to pay, unless you're willing to only create pages that support Netscape 2.0. Another option would be to make two types of JPEGs, and write your HTML so that the appropriate browser will see the appropriate images. This type of HTML is called "conditional HTML," and requires that you use CGI scripts or Netscape extension-based HTML, or let your viewers manually choose which type of page will be served by supplying different links that they can click on to view different pages.

JPEGs were designed to compress *photographic, continuous-tone, organic type images.* JPEG works best when it encounters subtle gradients within an image. When it encounters large areas of flat colors, it *increases* the file's size and adds unsightly artifacts. Here's an example:

The original file size was 110k when the image was a PICT. Saving it as a JPEG using the "Low" quality setting reduces the file to 20k.

When JPEG encounters large areas of flat colors, it increases the file's size and causes unsightly artifacts. This closeup of the JPEG image at the left reveals the artifacts.

FYI

For simplicity's sake, this article assumes that you are using Photoshop as an image editor. It does not mean that you cannot use other image editors to achieve the same results.

GIFs "R" Us

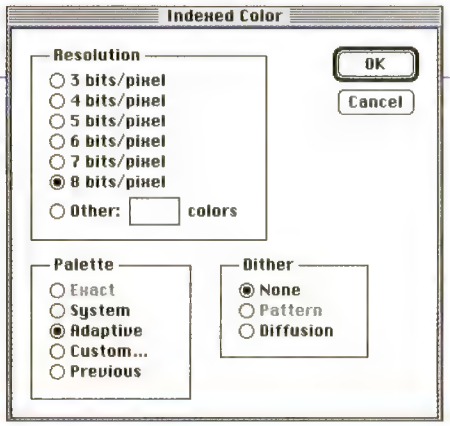
GIF compression works in the exact opposite manner of JPEG compression. GIF looks to large areas of flat color and compresses them the best, unlike JPEG, which compresses flat color the worst. This makes GIF the ideal file format for material like *illustrations, cartoons,* and *logos* (as long they do do not have large drop shadows or glows, which fall under a photographic or continuous-tone category).

When the same image you saw on the bottom of page 57 is saved as a GIF, it is reduced to 14k or lower, and it has no unsightly artifacts.

For comparison purposes: The same graphic, when saved as a JPEG, is almost twice as large at 22K, and looks worse.

If you need to save a graphic as a GIF, there are a few more memory-saving tips to learn. GIFs, by definition, have to be converted 256 colors. Converting a Photoshop document to 256 colors involves changing the "Mode" menu to "Index Color." When you index a photograph in Photoshop, the settings generally default to choosing 8-bit color depth (or 256 colors) for you. However, you can actually type in a different amount, and save lots of kilobytes.

When converting the mode of an image from RGB to Indexed Color, you don't have to accept the default settings.



Here are seven examples that illustrate how you can take an image down the bit-depth ladder without creating unacceptable image quality loss.

This GIF is 8 bit or 256 colors (26k).

This GIF is 7 bit or 128 colors (22k).

This GIF is 6 bit or 64 colors (19k).

This GIF is 5 bit or 32 colors (17k).

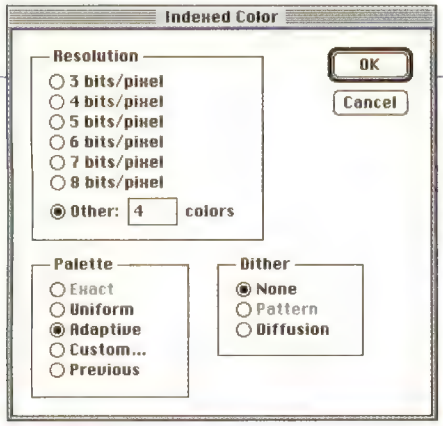
Photographic Sources as GIFs

GIFs have certain features that JPEGs lack, and there will be times when you will want to save a photograph as a GIF. GIFs are often used because the file format supports transparency, allowing for a single color to be masked, which makes it possible to create irregularly shaped graphics that don't have rectangular edges. This type of GIF is called a transparent GIF, or for the more technically inclined, a GIF89a. GIF89a's can also be used for animation on the Web. Netscape is currently the only browser that supports this feature.

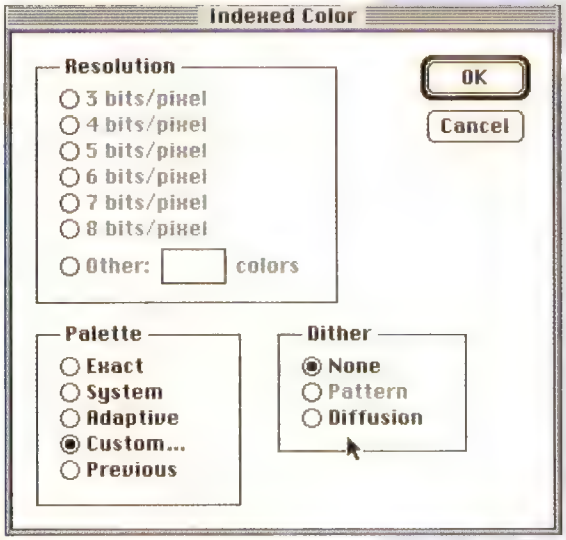
In addition to taking a photograph through all the bit-depth settings we've described, you can also save space by dithering an image. Dithering is a method of increasing image quality by taking two differently colored pixels and placing them close to each other to lend the illusion of colors outside the limit of 256. This often appears as small dots within an image, and can help a photographic source look more realistic in lower bit-depths. Unfortunately, GIF compression doesn't compress dithered images as well, so choosing whether to dither is yet another decision the Web designer must make when preparing photographic images as GIFs.

Here's an example of the hybrid image shown on page 56, set to 256 colors with dithering turned on. It is 33k.

Here's the hybrid image again, this time set to 256 colors with dithering turned off. It is 31k.



If you type in your own values, you can greatly reduce image size. It's your job as a Web designer to determine how far you can take the image down the bit-depth ladder before the image quality loss is unacceptable. To the right are some examples that demonstrate the savings.



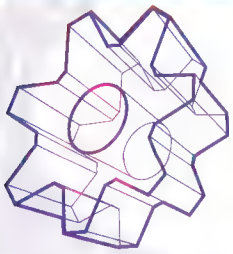
In Photoshop, you set the dithering in this dialog box to Dither: None, Pattern, or Diffusion. When making GIFs, if you choose the setting "None," you will always make the smallest possible GIF.

This GIF is 4 bit or 16 colors (14k).

This GIF is 3 bit or 8 colors (12k).

This GIF is 2 bit or 4 colors (9k).

Making low-bandwidth graphics is a balancing act between size and quality. Print graphic quality is not expected on the Web, but very poor image quality won't be accepted, either. It's your job as a site designer to try everything within your power to make your site's graphics as small as possible – even if it involves a lot of extra work. The extra time you spend on the front-end will mean people will spend more time at the back-end – namely, your Web site.



net FAQ

This month, we focus our Questions and Answers section of *The Net* on how to start the potentially painful task of learning the Java programming language, how to upload your Web page to your server, and how to play sound while online.

by Shei Kimen and Lauren Guzak

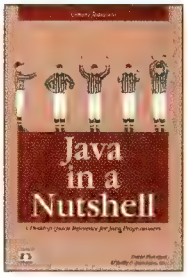
Got a question about getting or staying online? We've got answers. Send your questions via e-mail to **faq@thenet-usa.com**, or by snail mail to **150 North Hill Dr. Brisbane, CA 94005.**

Tackling Java

I am an experienced graphic designer who just recently started designing on the Web. I'm extremely interested in Java, but am a rank beginner in programming. Can you recommend a book on programming that would give me enough of a foundation so that I could tackle Java?

David Drummond
drummond@suroit.rocler.qc.ca

It seems that these days, every publisher has released at least one Java book, and many are releasing more than one. Our first recommendation is to look for anything related to Java put out by the publisher O'Reilly and Associates. O'Reilly has an industry-wide reputation as the leading publisher of how-to computer programming books.



It's published *Java in a Nutshell* (David Flanagan, ISBN 1-56592-183-6, 800 998 9938, **http://www.ora.com**, $19.95), is a nice, broad introduction. Meanwhile, New Riders has released *Programming JavaScript for Netscape 2.0* (Tim Ritchey, ISBN 1-56205-585-2, **http://www.mcp.com/newriders**, $35.00), which is also an excellent reference book. The bonus is that it's accompanied by a CD-ROM that's laced with sample scripts and a compiler. If you're a "rank beginner," as you say, we predict that learning Java will be mighty challenging, as it causes problems even for people trained in object-oriented programming languages like C++ and Small Talk, though Java, like HTML and VRML, will eventually be supported with easy-to-use tools and libraries. So, if the books don't help you along, it probably won't be long before Microsoft will.

How To Build a Web Page

*The articles about building your own Web page were great (*The Net *April 1996, pages 30-50), but some vital information that I needed was not covered. What is the process of transferring the Web page you have created to the server that will retain your page for all to view? I know it will be completed through the FTP process, but do I just upload the HTML files to the FTP directory that has been set aside for me at the server's location, or what?*

Turbo
turbow@adnc.com

Precisely! Load up your FTP client, be it Fetch or Win FTP, and set its parameters to meet the server to which you want to go. In most cases, your FTP client will be password-protected, but be sure to verify this before you try uploading. When you do upload a Web page, upload the HTML file and all the images that go with that file. If you are uploading several pages, make sure that your folder hierarchy matches all the paths you have designated in your code. For example, if your images are in a folder called "images," and you are sitting on someone else's Web server, like **http://www.thenet-usa.com/~turbo/**, then the line for calling up images would be <IMG SRC="../~turbo/images/name.gif">. If your URL is **http://www.turbo.com**, then your path to the images would be <IMG SRC ="../images/name.gif">. Making sure your paths and folders are in order is probably the only complicated step in uploading your site. Good Luck!

Listening to Sound

Since I picked up your magazine on the newsstand, I haven't been able to put it down. I have a problem, though, getting to hear sounds. I was wondering where I can turn my video enhancer off so that I can hear sounds. Hopefully you can help with my struggle.

Martin Mahalchick
state@postoffice.ptd.net

Your video enhancer (whatever that is – our team of PC experts has never heard of such a term!) should have nothing to do with whether or not you hear sound from your PC.

Let's approach the issue of sound on two fronts: 1) The specific issue of audio via the Internet; and 2) The more general issue of audio played out of your computer. Audio requires four basic components: the sound file itself, a software player, speakers, and a sound card. Sound cards and internal speakers are standard hardware components in today's computers, and players are bundled with both Windows 95 and Macintosh system software. To improve the quality of the sound you hear, attach headphones or external speakers to your sound card. If you use Windows 3.1, you might have to track down some sound-playing software on your own, but, fortunately, there are plenty of good public domain or shareware software packages to choose from – conveniently available for download from myriad shareware and music sites, like Jumbo (**http://www.jumbo.com**). We say "might" because if you own a CD-ROM drive that you'd like to use for playing music CDs, you probably got a free player bundled with that hardware.

If you can't hear audio from a music CD, the first thing you should do is check to make sure that your speakers are plugged in to the proper port on your sound card. If you're using a Mac, go into "Control Panels" under "Sound" and check the "Sound In," "Sound Out," and "Volumes" to make sure that the "Input" is your CD-ROM drive and that the volume is on.

Now, onto audio via the Internet. Digitized sound is described by its sample rate (e.g., 22KHz and 44KHz) and sample size (e.g., 8-bit and 16-bit). The higher these numbers, the better the quality of the sound you'll hear. Audio CDs, for instance, always have 16-bit, 44KHz sound. To hear sound via the Internet, you need to download sound files onto your hard drive. (Unfortunately, audio files are remarkably difficult to compress, and 16-bit, 44KHz, CD-quality sound files of any significant length will be many megs in size. All of this means that it can take forever to download such a file with a 14.4bps modem.) Alternatively, you can have that sound sent "live" so that you can hear it as it is received by your computer from the computer that you're connected to. This "live" play of audio is called streaming, and it is a technology that is being developed by many companies, chief among them Progressive Networks. Download its RealAudio plug-in at **http://www.realaudio.com**. The RealAudio plug-in lets you play RealAudio files through your browser. Streaming is a great idea, but it currently only lets you play 8-bit, 22 KHz audio, and the sound tends to be choppy as well. CD-quality sound using streaming technology has yet to arrive. Learn more about audio streaming on pages 28-34 of this issue of *The Net*.

The World (Wide Web) According to Lynda:

Fear of Plug-Ins

by Lynda Weinman

I have this problem with plug-in ambivalence. I like 'em, I don't like 'em; I want 'em; I don't want 'em. Before you read on, be forewarned that I have more questions than answers.

For years, people have been asking me why I haven't abandoned my Mac for the greener graphic pastures of a Unix box. I broke down last year and bought a Pentium that shares my crowded office with my 12-year-old historical collection of Mac antiquities, but that was as far as I was willing to venture. Why? I like ease of use. I like affordability. I like waking up at night and working in my jammies, and so far, don't have the bucks, time, or interest to tackle ye old SGI learning curve.

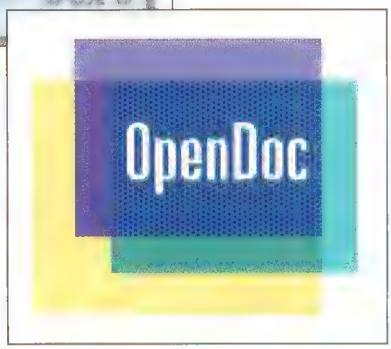
Why else? I like extensibility. Plug and play. I like getting a new software program and adding its new features to my old bag of tricks. I've long been an advocate of open architecture. Proprietary, integrated software packages that claim to do it all don't cut it with me. I want to be able to add and subtract from my software capabilities at whim and without restrictions.

So, you would think that Netscape and Internet Explorer's extendible architectural offerings of "plug-ins" would suit my fancy just fine. Why is it that someone could offer me a free Photoshop plug-in and I'd add it to my stash without hesitation, but I'd resist adding plug-ins to my browser as if they contained a new strain of computer virus?

Am I alone? I don't know – you'll have to e-mail me (**lynda@lynda.com** with a message in the subject header "plug-ins") to tell me. Plug-ins give me angst. I don't know whether to support them on my home page or not. I mean, what if people come, don't have the plug-in they need in order to view my page, and leave before looking around? It could happen. I know first-hand. I do that to other people's pages. It could happen to me!

I want to have my sound, interactivity, vectors, fractals, animations, and eat my cake, too. I don't want to have to stop, download a plug-in, quit, install it, and reboot my browser. I don't want to ask that of my audience, either. Of course, I want what the plug-ins offer. I just don't want the hassle that they bring along with them.

Why are browser companies reinventing the wheel? Microsoft's OLE' and Apple's OpenDoc both add the extensibility that browser companies are pursuing.



When I expressed some of these frustrations to Craig Kanarick of Razorfish fame (**http://www.razorfish.com/inc/prinbio.html**), he added his own take on the subject. "Why is it that the browser companies feel that they have to re-invent the wheel?," he says. "Why do you think Apple (**http://dev.info.apple.com/du/intro_to_opendoc/iod0_index.html**) invented OpenDoc, and Microsoft (**http://www.microsoft.com/oledev/**) invented OLE'? They've already solved the problem of adding the same extensibility that the browsers are attempting to re-resolve!".

Can you say g-r-e-e-d? That's my take on it. That's the trouble with this world, if you ask me! It's the greediness of computer manufacturers and software companies that makes standards impossible and users like me go crazy! I mean, wouldn't life be grand without all the differing operating systems, file formats, and methodologies required to perform the acrobatics that we must endure in order to create computer graphics?

And then my other half argues with this logic. What would computing be like without competition? What would propel technology forward? If there is no forum in which to experiment, compete, come up with new ideas and standards, won't everything just stagnate?

I'm told that the HotJava browser (**http://www.javasoft.com/hotjava.html**) will download plug-ins automatically and install them invisibly into the end-user's system. That solution would sure make me a lot happier, but I don't (sigh) happen to own a Sun or NT workstation, so I can't run that browser. Perhaps there's hope, because reports claim that the next version of Netscape (**http://www.netscape.com/**), code-named "Atlas," is supposed to support Java applets that could instruct a plug-in to play in a browser window without having to be installed. Somehow, I imagine that the current state of plug-in installation is an unpleasant blip in the history of the Web and it will improve with time.

Meanwhile – lots of cool plug-ins are being developed. (For a full menu, go to **http://www.browserwatch.com/plug-in.html**.) A fully functional multimedia Web is slowly and painfully unfolding before our eyes. I hope someday to be able to laugh about how we worked with plug-ins today. Meanwhile, the growing pains hurt.

I've heard that the HotJava browser (http://www.javasoft.com/hotjava.html) will be able to download plug-ins automatically and install them invisibly. Web designers like Razorfish's Craig Kanarick wonder, though, why browser companies are attempting to re-resolve problems that have been solved in the past.

Lynda's Homegurrrl site is online at http://www.lynda.com. She is the author of *<designing web graphics>* (ISBN:1-56205-532-1/New Riders Publishing).

by Jon Phillips

Bizarre Site o' the Month

Warning: This Vehicle Is Extremely Perky

2UCW437

"The phone ringing woke me up at 8:30. It was a man named Wayne with a Polish surname. He was calling about the letter I had put on his wife's car the day before. I was pleased to get the call and expressed my good feelings to Wayne. On a down note, he told me that the note 'kind of freaked her out.' I offered my apologies and reassured him that the result was not the intended one. It came around that the Cabriolet was actually Wayne's, not his wife's. He reiterated that I was not to take his wife out to lunch in it. Wayne seemed to be missing the point. I told him, since he held the title, I actually wanted to take him out to lunch. I wasn't interested in his wife. I was into the car and its rightful owner. To Wayne's credit, he seemed to mull it over before deciding, 'No, I don't think so.' "

"At about 9 p.m. I received a call. A nice gentleman, very mannerly, asked if I was Peter M. Bergman. He introduced himself as John. John and I were engaged in a pleasant conversation, so I went ahead and asked him his reason for calling. I had left a form letter on his girlfriend's car that day. I wondered, aloud, why John was calling when his lady had been my target audience. His reply, 'Well I just wanted to tell you that she is taken.' I commended John on his chivalry and told him not to worry. I put those letters on all White Cabriolet Convertibles. In fact, I had not even known that the car belonged to a female. Apparently, John had not considered that scenario as a plausible one. 'You just like the car?' Just to be sure, I asked him if she was still declining my invitation. She was."

2LDR039

2TFF442

"This guy called me at 8:30 in the morning. He asked if I was the one who left a letter on his car at the VA Hospital. Most certainly, I was. The man promptly informed me that it is illegal to put things on people's cars on federal property. I was aware of the fact that there were peculiar laws pertaining to the area. I was not aware of that particular law. I asked him what his name was. He refused to tell me. Throughout our conversation, the mystery man kept telling me, 'I'm just trying to be a good neighbor.' "

You're looking at a white Volkswagen Cabriolet. Standing next to the car are two potential owners: a portly construction worker named Hank and a weight-conscious college student named Tiffany. Hank belongs to a gun club. Tiffany belongs to a sorority. Hank listens to the Allman Brothers. Tiffany listens to the Cranberries. Hank's pet catch phrase is "What are *you* looking at?" Tiffany's pet catch phrase is "shuhh!"

Who owns the Cabriolet?

If you picked Hank, you're wrong. Hanks owns that Buick Grand National – the one with the "Give Me a Beer and No One Gets Hurt" bumper sticker. Tiffany owns the Cabriolet. She cruises with the top down, and jumps from boutique to boutique, splurging on her parent's plastic. Tiffany is perhaps the typical white Volkswagen Cabriolet owner. Unfortunately, San Diego's Peter Bergman has yet to meet such a "stylish" creature.

Bergman is the proprietor of the White Cabriolet Convertible Database. Whenever he stumbles upon a white Cabriolet, he attaches a photocopied invitation to lunch beneath one of the car's wiper blades, and takes a Polaroid snapshot of the vehicle. The snapshot is eventually posted online, along with a report on the car owner's reaction (if any) to the lunch proposal. The crux of the invitation reads as follows:

Hello! I hope I find you in good health. The content of this letter I have left you is quite simple and sincere. White Cabriolet convertibles, such as yours, never fail to catch my eye. Your car, undoubtedly, has a certain style. I like style. Furthermore, I like stylish people. As you own such a stylish car, you must be, through association, quite stylish yourself. Given my affinities, I would like to propose an open invitation to lunch. This proposal hinges only on the provision that you drive, of course. Please contact me at the above number; or, just swing by. I look forward to meeting you.

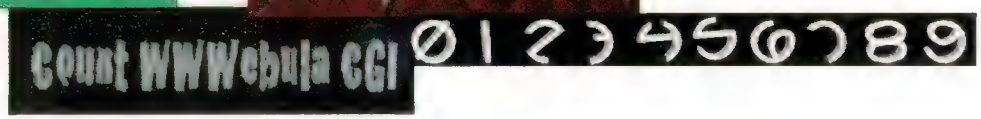
Sincerely,

Peter M. Bergman

As a kooky hipster surrounded by Biffs and Bettys, Bergman is clearly poking fun at the beautiful people of San Diego. His bonhomie is disarming, however, and, as his database demonstrates, his motivations are rooted in the social sciences, not romance. The Polaroids look like surveillance photos, and the accompanying reports are written without flourish. The end result is a delicate satire on SoCal beach culture and the Web's utility as a platform for academic scholarship.

Bergman has posted invitations on more than 50 Cabriolets. Aside from an awkward lunch date with a man named Wagner, he has generally interacted with only amiable but baffled men declining on behalf of their wives and girlfriends. Rest assured, if Bergman had a fascination with Buick Grand Nationals, he would have had his ass kicked by now.

Wagner, the only recipient to accept the invitation, drives Bergman to lunch. "Dance music was loud in the car. It made talking difficult. I assumed since Wagner worked out so much he had healthy eating habits. I suggested we get some sushi."



by Crystal Waters

Let Me Count the Ways

Some people love them and spend all their time creating them or reloading their pages to watch them change. Some people hate them, and wish the technology would be abolished. Some people, like me, are obsessed by them (well, my own, anyway). We're talking counters – Web page access counters – and if Count von Count from "Sesame Street" had his own Web page, he'd never leave his computer. "Von! I have von visitor! Two! I have two visitors!"

There is something mystical about going to one's own page, noting the number of people who have visited since whatever date, reloading the page, and having the number go up not one digit, but, say, three digits. This means that in the 30 seconds since you last reloaded, two other whole people entered your domain. They are probably (hopefully) still there. It's kind of like having two people sitting with you at your desk, or having a couple of strangers in your house who you can't see, but who, for some reason, you let in and gave free reign to go through your refrigerator and your underwear drawer. The cynics would argue that this is a stupid and useless feature.

But some companies are trying to make big bucks with their counters. The Internet Audit Bureau (**http://www.internet-audit.com/**) gives its counting service away for free (as of press time). You get the code to add to your page, and The Internal Audit Bureau server counts up your daily, weekly, and monthly visitors, as well as updates the statistical averages for each category. The purpose behind all this figuring is that if you ever try to take your Web page commercial, you'll be able to say to potential investors or advertisers, "Here's my stats as provided by an independent Web auditor," and they will be so impressed, they'll whip out the blank check right then and there. So far, this has not happened to me.

But I still track the numbers. Perhaps it's a residual fallout of the high school student council elections we all ran in – not to lead our fellow students into political euphoria, but to find out how popular we really were Besides – if you've spent days and nights working on a site, you want to make sure it's been worth it. There is the downside, though – those days when you've added something you're sure is hot, and after 24 hours, there have been only 19 visitors, and 14 of those have been you checking to see how many people have visited your page.

I have a friend who recently added a counter to his page, but I think I'm going to recommend that he remove it to save him from mental anguish. For some reason, every time I go there, it tells me I'm visitor number one. Which I guess makes me feel really good about myself, but I think it kind of misses the point. When this happens, he calls me to lament the fact that he only got two visitors. It was taking a toll on his ego – until the day he got 30 visitors. I haven't had the heart to tell him that on that day, I was doing the pity-reloading thing on my end. I paced myself so that it wouldn't seem obvious, it didn't take much time out of my day, and I made someone feel good. What more could you ask for? Besides the aforementioned blank check, that is.

And counters are getting fancier nowadays. While I've stuck with the digital counter my service provider supplies, those who have more control over their server situation can now add numbers with flare – in some cases, literally. Drop by The Digit Collection (**http://www.kattnet.com/digits/**) for an eye-popping selection of number graphics, from lotto balls to creepy black numbers dripping blood. There are ways to get around the number crunch if you're a counter-counter activist or if you simply want to taunt your ego. For example, if you install the AntiCounter (**http://www.cs.wisc.edu/~jenner/anti-counter.html**) on your page, it'll throw up a random number (over six figures) as the number of visitors to your page. Cute idea, but it makes me wonder if its creator is a bit bitter about not making it into student council.

Web Number Crunching Sites

Count WWWebula!
http://www.io.com/~combs/htmls/counter.html

Counter
http://www-rennes.enst-bretagne.fr/~martin/script/JAC.cgi

Counter 4.0
http://www.webtools.org/counter/

David's How To Add an Inline Counter
http://purgatory.ecn.purdue.edu:20002/JBC/david/how.html

Digit Mania
http://cervantes.learningco.com/kevin/digits/index.html

Java Access Internet Audit Bureau
http://www.internet-audit.com/

Wishing Com
http://204.119.16.17/

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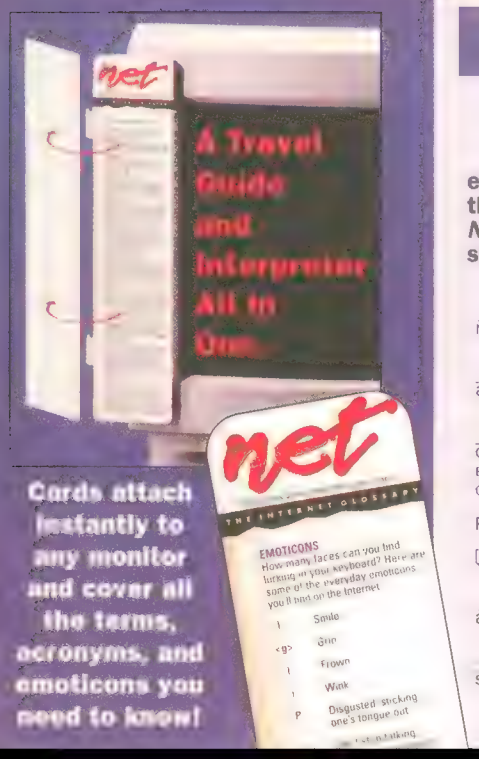

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blue pages

The Net's Directory

July 1996

For all you Blue Grrrl devotees, I have some good news and some bad news. If this were interactive, you could tell me which you wanted first, but it ain't, so here goes: The bad news is that Blue Grrrl has moved on to other things, and the proverbial the torch has passed to me (more on that later). The good news is that a) She still writes for The Blue Pages, and b) She is now *The Net*'s Web Mistress, errr,... Web Master,... mmm,... Web Grrrl,... Anyway, she runs the Web site. Me, my hair is black as a crow at midnight and wouldn't take the blue dye if I soaked it, but I'll do my best to carry on the spirit of the endeavor anyway. We'll continue evaluating sites with a critical eye always, a wry sense of humor whenever possible, and an unabashed bias at times. You may not always agree with us, but at least you'll know where we're coming from. Besides, objectivity's a drag. Hopefully, our efforts will save you some time online, and get you where you want to go. Or, if you don't know where to go, we'll get you started. As always, feel free to nominate sites for review (blue@thenet-usa.com), but please assign it a category. And be patient: The Web's a big subject. Good thing, that – we'd hate for you to get bored with it. *–Pat Joseph*

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blue pages rating system

We use three different criteria when we review a Web site. Check out our little icons to see how well each site measures up. For more info on reviews criteria, visit our Web site at http://www.thenet-usa.com/blue_pages/ratings.html

CONTENT
How much content is there, and of what quality? Is there enough to satisfy someone interested in this topic and seeking to learn more about it? Is it good enough to keep you coming back?

- *Rich in nutrients*
- *Good amount of content*
- *Needs more juice*

AESTHETIC MERIT
How attractive is the site? Though prettiness can't usually stand on its own, the layout *is* still important.

- *A visual 10!*
- *Appealing*
- *A dog*

TECHNOLOGICAL SMARTNESS
How well-constructed is the site? Are there effective navigational tools? Does the site creatively work around HTML conventions and limitations?

- *Rocket science material*
- *Smart*
- *Needs a brain*

We employ The Blue Bee *to tell you, "This is a Buzz!" In other words, "Go now!"*

The best sites we find are designated Sites of the Month. *Look for the icon to the left to help identify these sites.*

THE BLUE PAGES SAVES TREES!

Each 32-page Blue Pages saves:
- 300 trees
- 125,000 gallons of water
- 550 cubic feet of landfill
- 1,100 pounds of air emissions

So far (since we expanded the Blue Pages in our March 96 issue), we've saved:
- 1,500 trees
- 625,000 gallons of water
- 2,750 cubic feet of landfill
- 5,500 pounds of air emissions

art

6168
http://mindlink.net/ph/

New media and old-fashioned snapshots create unique art at 6168.

Canadian artists Peter Horvath and Sharon Matarazzo pool their talents and birth dates to form the site 6168. From the very first page, you can tell that designers were in charge of the site, with its object-orientated, almost textless index. Take a journey into the mind of an immigrant and lost lover in two non-linear photo essays. 6168 incorporates both new media and old-fashioned snapshots to create a unique art form. *–BJB*

net rating:

Andrew Shachat
http://ourworld.compuserve.com/homepages/artbaby/

Not every artist can say he's illustrated for *The New York Times*, *The Village Voice*, *Seventeen*, and a children's book called *Stop That Pickle*. Andrew Shachat's online portfolio captures dogs playing guitar, a devil munching on lollipops, and cats selling cleaning fluid. Hang out with hipsters in his online art opening, or try to decipher the humor behind his link to

Artist Andrew Shachat puts droll art from his various assignments online.

Doctor Correlius Chimp's Hospital of Digital Genetics. *–BJB*

net rating:

Barbara Safran Studios
http://www.csi.nb.ca/safran/

Horses, flowers, and clouds are the muses behind Barbara Safran's paintings. The site features a handful of artwork, and one interview with the painter. Beginning painters will find the Artist Corner to be the most interesting and helpful section, with its advice on the horizon line, perspective, still life, painting on location, and working from photographs. The Studio should put more work online, though, to really be worth its bandwidth. *–BJB*

net rating:

Blacksun
http://www.dnai.com/~blacksun/

This Java boy wonder of a site displays art on canvas and on skin. Blacksun shows off paintings and tattoo designs, and includes an article on taking care of the more "permanent" works of body art. This site also revolves around a galaxy of Java animations; whirling squiggles, blooming flowers, and dancing stick people add life to the monitor. Check out Blacksun's message board and guest

book for more tattoo advice and Web design praises. –*BJB*

net rating:

Ken Christian's Photo Gallery

http://www.ebicom.net/~kenchr/gallery/homepage.htm

Give a guy a camera, and 20 years later he's bound to have a few good pictures. Kenneth Christian served as a photographer, editor, and publisher for *The Banner-Independent*, a small weekly in Booneville, MI, from 1975 to 1995. The photo subjects range from cute little kids to not-so-sweet car wrecks. Photojournalists and art lovers alike will appreciate Ken Christian's attention to detail as he focuses on real life with only a camera in hand. –*BJB*

net rating:

Rembrandt

http://amsterdam.park.org/Netherlands/pavilions/culture/rembrandt/

The Dutch master's work comes to life via this well-done site.

The long-deceased Dutch artist comes alive in this multimedia presentation. View QuickTime video explanations of "The Jewish Bride," or listen to project director Ernst van de Wetering discuss various Rembrandt works. Find detailed papers on "The Rough Manner: Rembrandt & Titian" and "Paint Surface & the Evocation of Space." Read how researchers found Rembrandt forgeries by dating not the paint but the wood panels behind the canvas. –*BJB*

net rating:

Selvia's Art Cave

http://www.dnaco.net/~ivanjs/jshp.html

Aside from touring the computer art gallery featuring portraits of skulls, fractals, and nudes, visitors to Selvia's Art Cave can watch a random alien fashion show or have a look at bad starship designs rejected by the Federation. Read true science stories about ham radio and integrated circuits. The art isn't worthy of any Dali award, but the hodgepodge of content and graphics make this Cave a site fit for any bat fixin' to byte into a digital gallery. –*BJB*

net rating:

The Art Line

http://grimmy.santarosa.edu/~sfaught/art.html

From Neoclassical to Modern, The Art Line offers short descriptions of art movements. Special articles peer closer at the rapidly changing scenes and the freedom in which artists have to experiment. Any art lover or student will appreciate the vast spectrum of art JPEGs, as well as the huge directory of links to museums, university art departments and artists themselves. –*BJB*

net rating:

The Unknown Photographer

http://home.earthlink.net/~dpuglia/

The photos at this site share a fascination with the commonplace.

Java applets and still photography combine to make an obscure gallery unlikely to be known to the average Web wanderer. Some of the photographers in the exhibit do have names, despite the site's title. Miko Yamaguchi and David Puglia take viewers on a special trip through a strange world of broken hotel signs, cereal boxes in the snow, and balloons on sticks that should make any shy shutterbug look for similar inspiration in the commonplace. –*BJB*

net rating:

Victoria Benatar Urban Home Page

http://www.columbia.edu/~vb45/vb.index2.html

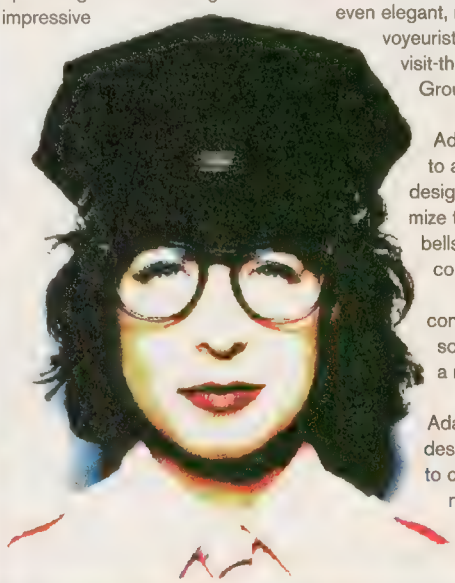
If you could tear down New York City and start designing it over again on your computer, what would you do differently? The Victoria Benatar Urban Home Page showcases projects from students at the Graduate School of Architecture, Planning, and Preservation at Columbia University. Students present their 3D ren-

Adaweb

http://adaweb.com/

The instant I ventured into Adaweb realm, my sensory overload meter hit the red line. This site establishes a much-needed platform for Web-specific content in which contemporary artists can communicate with the Internet community. As platforms go, it's a rather lofty one, so you may want to don your highbrow reading specs, and grab an encyclopedia of obscure references before climbing aboard.

Adaweb currently serves up six segments featuring an impressive variety of heavy-hitting content. The first level, Project, houses works created specifically for the site, while Influx becomes the digital display case for works that exist in real space. Not only does Adaweb feature a vast array of artists, but it presents their work in a clean, even elegant, manner. Navigate seamlessly from Julia Scher's coldly voyeuristic Securityland right into a warm, peppy, Armani-models-visit-the-Emerald City-type of piece about love as perceived by Group Z.



The clean design and architecture of Adaweb help make the site more hospitable to an ever-changing guest register. The site designers have used HTML to visually optimize the layout without crowding in too many bells and whistles, or overshadowing the content.

And for those browsing with slower connections, the creators have made a conscious effort to keep their page sizes down to a minimum.

Hot and cold, soft and hard, glaring and subtle, Adaweb encompasses the entire spectrum in one cohesive design, providing an electronic forum for experimental artists to display the fruits of their labor. It's a dynamic achievement not only worth the first visit, but, as with all the best zines, one to bookmark for future visits. –*HS*

net rating:

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

derings of lower Manhattan and Harlem. Some of the text is a bit too academic to provide you with a good understanding of the project, but the pictures might remind you of movie stills from *Blade Runner*. *–BJB*

net rating:

bizarre

1 800 SEX-STUD
http://www.oj.com/

A mock front page of a tabloid serves as the guide to this site.

This self-proclaimed "Pothole on the Information Superhighway" offers up a mix of links to phone sex ads, supermodel home pages, UFO theorists, and stuff about O.J. – the man and the citrus drink. (Yes, there really are links to orange juice concerns!) All of this is presented like the front page of a supermarket tabloid, with plenty of beefcake butts and B-I-I-I-I-G, colorful headlines. There's not much original content (except for the phone sex ads), but it's loads o' fun for slackers and perverts anyhoo. *–TG*

net rating:

Bureau of Missing Socks
http://www.jagat.com/joel/socks.html
This site boldly explores the occult, conspiracy, and extra-terrestrial theories of missing socks throughout the world, with a Missing Socks Secret Agents Home Page link. On a lighter note, the Bureau is doing whatever possible to reunite socks throughout the world, or to find new homes for orphaned socks: The Missing Sock Singles' Club, for example. Fill out a sock "personality" profile, and send it in the hopes of locating a sock soulmate, or join the communal vibe efforts of Woodsock 96! Praise unto The Bureau of Missing Socks, leading the way in sock reuniting efforts worldwide. *–JS*

net rating:

Elvis Spotter's Web Page
http://ace.cs.ohiou.edu/personal/smccormi/elvis.html
This site treats us to a single photo of the King, shaking hands with Richard Nixon. A three-button menu leads to "testimonies" of confirmed Elvis sightings, including the most recent of these entries (for the devout stalker). There's also a form so you can send in your own account. The testimonies indicate that Elvis still gets around; reports come from Scotland (Loch Ness?) and Australia, not to mention his native terrain. But the true proof is an e-mail message addressed by Elvis Aaron Presley himself! *–JS*

This site focuses on testimonies of Elvis sightings, not photos of the King.

net rating:

House of Sacred Squirrels
http://msuvx2.memphis.edu/~ujmshrader/
(Note: In keeping with *The Net*'s "Sympathy for the Devil's Home Page Designer" policy, this review is written in the style of the page it reviews.) Do college students have too much time on their hands? People Do. U-G-L-Y spells yooglee: so say I, with panache, and at random. Surrealist? Nyet. Dada? Nyetnyet. Just plain weird, and so are your friends (Fox Homepage, Dirtquest). You're looking the very picture of xpliq! It makes me happy: means nothing, tastes great. You don't need drugs to fish in my stream of consciousness, but it couldn't hurt. *–TG*

net rating:

No Man's Land
http://mars.superlink.net/henry/
No Man's Land: Nice try at black humor. After accepting the disclaimer stipulating that I leave at once if I encounter any objectionable content, I found myself on a vain search for anything interesting. There's a Might-ish interview asking "Macully Culkin" about puberty problems, a joke book, and a horoscope. The highlight is The World's Dumbest Inventions, including non-alcoholic beer, clothes, school, home shopping club, and government; but we knew that already. *–JS*

net rating:

Ovi's World of the Bizarre
http://netmar.com/users/ovigher/ovi.htm

Find funny stories but some not-too-fun HTML tricks here.

Ovidiu Gherghe has collected some very funny stories on this Web site – stories of the incredible sort that friends e-mail to friends. You know the kind. And though it's a great read, the presentation is lacking. The text is split into dozens of pages, navigational buttons are rare, and on the day I visited, none of the main page's graphics loaded properly. Ovi knows some fun HTML tricks (he shows 'em off at **http://netmar.com/users/ovigher/webplay.htm**), but these pages need work. *–TG*

net rating:

Page from the Future
http://members.aol.com/futurepage/future.htm
A hundred years from now, when it will be possible to look into the past, scientists will be puzzled by the most trivial facets of our lives, and they will want to post their personal diaries for long-dead people (us) to read. These are some of the impressions I got from this fanciful site, purportedly the work of a team doing research on the late 20th century in the year 2090. But as a present-day reader asks, "If you are from the future, how come you're using America Online, you fools?" *–TG*

net rating:

ROX
http://www.rox.com/quarry/
The subliminal stonewall background sets the theme of the ROX site: stoniness. A series of photos lead to features – Bartender shows us how to mix a Zima Slimeball, Tech-Worshipper gives a guide to campus info-kiosks, the Anarchic Clown defaces a bathroom wall in a Taco Bell, and bald-headed Wisdom torches a teddy bear. The adventures of the creators of the ROX cable access TV show are chronicled here, along with a search engine and archive of downloadable video files, (including entire 30-minute episodes!). The zany antics and tight tech format make you wonder how they do it. *–JS*

net rating:

Sea Monkey Worship Page
http://haven.uniserve.com/~sbarclay/seamonk.htm

Why worship sea monkeys? If you don't know, go here immediately.

Sticking to the undersea theme with aqua lettering set against a beautiful ocean backdrop, this site pertains to all things Sea Monkey, accompanied by the registered trademark stamp throughout. This means links-aplenty: to the Sea Monkey Celebration Page, Sea Monkey Christmas, Birth Announcements, FAQ, etc., etc. Our Aussie friends recognized this Canadian site with the "Top 1% of the World's Web Sites" award; still, the site creator warns us that these lovable creatures may not appear as illustrated in several hilarious images. *–JS*

net rating:

The Amazing Magic 8 Bob
http://inp.cie.rpi.edu/cgi-bin/bob
The Bob site opens to several horrendously superimposed horizontal frames. The effect is cluttered, until the initial link is discovered. Born of boredom, Bob and the creator are currently depressed. Humorous, I suppose, but pretty techie also. Any jokes containing Perl script referencing are a bit of a stretch... It is possible to "draw upon Bob's infinite wisdom by entering a yes/no question." This can be sent directly to the source. I'm just not sure about the quality of Bob's divine wisdom. *–JS*

net rating:

The Bastard Son of the Lord Home Page
http://www.trog.com/jesus/
Connoisseurs of sacrilege will find this good-humored. Christians will find it tasteless and profane. There are pictures of the Savior here, and a song about Him. And then there's the Messiah Log, a new development by which the Lord posts His daily thoughts, including links to a list of hell-bound souls ("not all-inclusive, updated frequently"). Guess He has bad days, too. I was surprised to see Mother Teresa listed here. Then, there's the community-building aspect of the the site: the Page O' Miracles. Read through the testaments, or add an "alleged miracle" of your own! *–JS*

net rating:

The Bathrooms of Madison County
http://www.rust.net/~fluxus/

If you've ever experienced a road trip on too much Diet Coke, go here.

Here's a story about a trip to the God-kissed acres known as Madison County, IA, with no concern for the quaint bridges they have there. Well, O.K... There are links to souvenir shops ("I covered the bridges in Madison County" T-shirts and the like), but this site is really about a man's trip back home to see his mother, about the woman he takes with him, and how Diet Coke seems to go right through you. With lots of pictures, it's a good show. Enjoy it. *–TG*

net rating:

The Library of Questionable Scholarship
http://www.teleport.com/~dkossy/librqsch.html
This site describes the work and life of Alfred W. Lawson, the inventor of

"Lawsonomy," the Knowledge of Life and a desire to learn truth by studying the forces of "Zig-Zag" and "Swirl". Uhh... O.K. From here, it's off to the Kooks museum lobby to find a beautiful image of a neon entrance; open 24-7, the place looks packed! The Schizophrenic Wing, Conspiracy Corridor, Gallery of the Gods, and Monuments of Kookdom are all here. This site is extremely well laid-out, with several sets of possible links; some are text-only, and others are organized by title, color image, and explanation. *–JS*

net rating:

The Official French Fries Page

http://www.select-ware.com/fries/

There's really nothing very bizarre about French fries. As this site itself points out, French fries are found all over the world, not just in France. Really, what could be more common than that bag of fries you get from the McDonald's drive-thru? Well, these pages have an ideal balance of information on the supposedly "bizarre" French fry, including humorous sections, recipes, international information, and the complete text of the U.S. government regulations concerning French fries. A special section also covers that Quebec treat, "Poutine." Bizarre? No. Tasty? Yes! *–WKC*

net rating:

True Science

http://www.dnaco.net/~ivanjs/truescience.html

True Science delves into the truth behind integrated circuits

Did you know that integrated circuits are your friends? The True Science site gets to the bottom of the "true" meanings of those little contraptions of the modern world. First, visitors are forewarned of the "false" definition that they may have encountered via the Popular Press Society (PPS). But then, text links lead to seven individual pages describing the contraption pictured in the site's full-color icon. This is full of acronyms such as (WLD) – Wonderful Little Device. *–JS*

net rating:

White Trash Cafe

http://gramercy.ios.com/~rcwiley/trash/trash.html

Buy White Trash and Celebrity Trash items at this site.

The question is: Do you want to eat or would you rather shop? These are the only two things you can do at the White Trash Cafe. Well, that and wait. It seems that the creators forgot about the critical element of convenience. You know, like a drive-thru? The shopping has two sections: White Trash (T-shirt, briefs, timer, and fragrance) and Celebrity Trash (O.J.'s Evidence Collection). At least you don't have to waddle from the parking lot to the mall entrance... *–JS*

net rating:

corporate

Architect Susan Grant Architectural Design

http://members.aol.com/sgrantarch/index.html

This is a clean and elegant site promoting the services of a Chicago-based architecture and interior design firm. Grant's portfolio speaks for itself, but she also offers something important to any Web site – a service. Link to her Steps For A Successful Building Project for hints on how to save time, money, and irritation when building or remodeling. As to why you should hire an architect instead of doing things yourself? "It is not enough to watch a few 'This Old House' episodes." *–DP*

net rating:

Berklay Air Services Corp.

http://pages.prodigy.com/NY/serv99c/aircargo.html

Meet Berklay Bernie, the HTML-crunching airline shipping expert. I really dig Berklay's site -- no nonsense, no download waiting time, almost no formatting. It just gets the job done. Just like Bernie. In fact, if pigs learn to fly, Bernie promises that his family business "will book space on them!" Got a far-away motorcycle show coming up? You know who to call. With lots of family gossip, showbiz daydreams, and asterisks thrown into his site, Bernie earns my trust. As Bernie says, "Goodroads!" *–DP*

net rating:

Construct

http://vrml.arc.org/

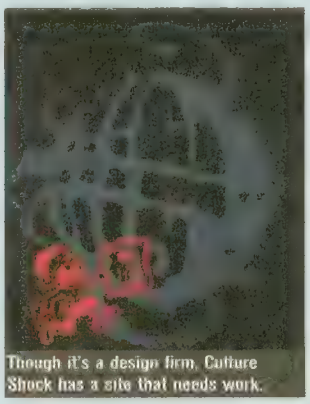
The San Francisco Internet design firm, Construct, has an amazing site.

Construct is the most inspired Internet design firm in San Francisco's Multimedia Gulch. With avante-garde experiments in VRML, Java, and other advanced programming languages (plenty of examples are on the site), Construct is tied to the future of the medium. A roster of projects includes everything from the design of the B.B. King CD-ROM Web site to the creation of virtual reality models of nanomechanical devices for a recent molecular nanotechnology conference. *–DP*

net rating:

Culture Shock Inc.

http://revolution.cultureshock.com/csi/top.htm


Though it's a design firm, Culture Shock has a site that needs work.

A self-promo for a graphic design firm, this page doesn't have what it takes to stand out online, where everyone is a master of typography and technical tricks. While the logos and icons are nice in a simple, post-Neville Brody sort of way, the plain layout and snoozy content doesn't make me want to sign on the dotted line. Culture Shock prides itself in its alleged ability to "generate and execute extraordinary ideas." It's so proud, in fact, that it's put a ticker-tape at the bottom of the screen that broadcasts the claim over and over and over... Yeah, pretty extraordinary. *–DP*

net rating:

J. Walter Thompson

http://www.jwtworld.com/

Take a surreal jaunt through J. Walter Thompson's world of advertising. Learn about the firm's "global" approach to advertising while enjoying some *New Yorker*-esque illustrations. Visit the gallery where you can view TV commercials from the firm's repertoire or get a personalized Web site via an e-mailed URL, for viewing at your leisure. Neat, but I'm not really clear on the point. There's even an online game where budding creative- and/or cut-throat-types get a chance to shine in a pretend advertising office. I'll stick to *watching* commercials. *–DP*

net rating:

Lansdale Semiconductor Inc.: Wafer Fabrication of Integrated Circuits

http://www.syspac.com/~lansdale/

Here's a corporate site that focuses on what it does, and why.

Lansdale is a semiconductor company that's been cranking out silicon since the mid-60s. And unlike most high-tech companies, which are busy pushing new products, Lansdale, an "after-market technology" business, is manufacturing the semiconductors needed to keep your old workhorses running. This is a fine example of a corporate Web site put together without any pretense; it simply offers information about the company and its products. Press releases, mission statements, a company history, departmental information – it's all here. If I ever need a Motorola ML7406 buffer/driver, I know who to call. *–DP*

net rating:

Multimedia Connection

http://www.tiac.net/users/mmc1/

Apparently, Multimedia Connection is a multimedia production company ready to transform your boring old content into something special, with video, interactive kiosks, CD-ROMs, and the like. While the home page design is colorful and mildly attractive, and the team may indeed be top-notch, the services discussed and the language used on the site are not creative or original enough to grab the attention of a sophisticated Web denizen. My favorite pitch: "Are you an author of a book and would like to have your book offered on CD-ROM?" Yes! Please! More shovelware! *–DP*

net rating:

The Official Fisher Spacepen Co. Web Site

http://www.fisherpen.com/spacepen/

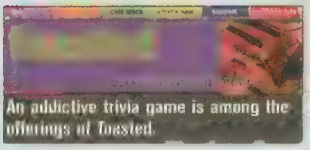
I'm way into Fisher Space Pens. These things are so sleek and space-age that the astronauts use them. Write upside down, underwater, on the frozen surface of the moon, anywhere, all through the miracle of Fisher's Sealed Pressurized Ink Cartridge, explained with a neat-o diagram on this fluid, if simple, Web site. The

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	A visual 10!	Rocket science material
Fair amount of content	Appealing	Smart
Needs more juice	A dog	Needs a brain

site is in the early stages of development and still lacks content. But I'll keep checking back. Fisher has lots of stories to tell, and the Web is an ideal outlet for them. If this sounds like a commercial, too bad. Go buy a Fisher Space Pen. Now. – *DP*

net rating:

Toasted, Berkeley Systems Online
http://www.berksys.com/index.html



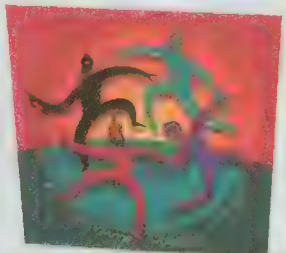
An addictive trivia game is among the offerings of Toasted.

Toasted is the online home to the mad minds behind those annoying flying toasters that everyone loves to hate. While not especially well-designed or tricked-out, the site is still worth a quick visit. Pick up a few new After Dark displays, stop by Cafe Slack for some free expert advice on love or lounge-wear, then order yerself some more questions for Berkeley Systems' aggressively addictive You Don't Know Jack trivia game (remember, the game is for entertainment purposes only). Of course, you can also buy an inflatable flying toaster for just $4.95. Seriously. –*DP*

net rating:

education

Arts Edge
http://artsedge.kennedy-center.org/



The Kennedy Center site is a cultural jackpot for all ages.

Targeting students, teachers, and artists, Arts Edge is the Kennedy Center's Web presence. The site is packed with links for those wishing to network with others, looking for work, or seeking art-related Web sites. It's also geared to those interested in all aspects of the arts – music, dance, theater, film, TV, the fine arts, literature, poetry, education, etc. A surfer could get lost for hours in this hyperlink metropolis. And there are as many links for adults as there are for children. –*DR*

net rating:

Canadian Homeschool Resource Page
http://www.flora.ottawa.on.ca/homeschool-ca/

Find home schooling contacts throughout Canada here.

This site proposes an alternative to public schooling in Canada while offering information and resources parents may need if they intend to teach their kids themselves. Wish to talk with other homeschooling parents? There are local contact addresses for some (though not all) of the provinces. Generally speaking, the site is less thorough than some of its U.S. counterparts (such as **http://www.ICtheWeb.com/hs-web/**) and the FAQ is somewhat incomplete. Still, an admirable start. –*TG*

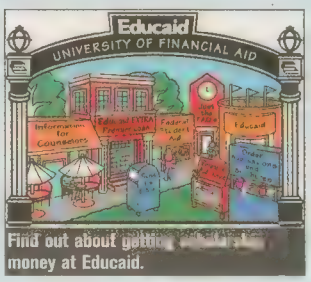
net rating:

Doty's Education Page
http://www.netaxs.com/people/rdoty/

There are two extremes in Web catalogs: huge lists of links with no commentary (à la Webcrawler) and annotated lists with too few links (à la most personal pages). Educator Robert Doty has found the middle ground in this site, a page dedicated to education links (separated by grade-school subject) with some original content – i.e., articles he's written on education and technology. There are a few minor technical problems: no "back-to-home page" buttons, for instance. Still, not bad for someone who says he got into public education for the free Internet access. –*TG*

net rating:

Educaid Online
http://www.educaid.com/



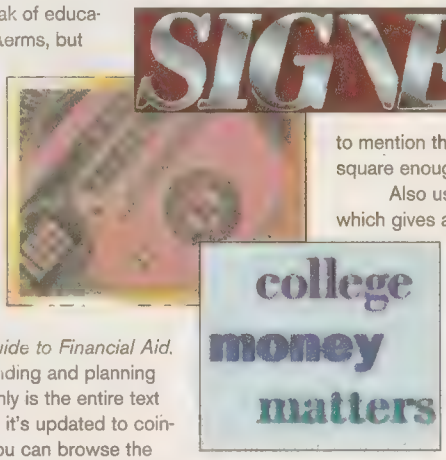
Find out about getting additional money at Educaid.

A lot of places offer general information on college entry requirements and government student loan programs. But where do you go to actually get the money you need? Educaid is one such place. With FAQs, quizzes, application

College Money Matters

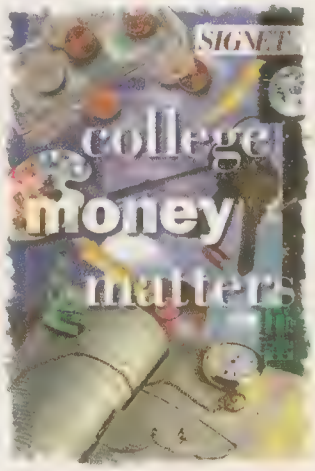
http://www.infi.net/collegemoney/

I know it's crass to speak of education in strictly financial terms, but sooner or later, you've got to admit. It all comes down to money. There's no guarantee that a college degree improves your financial worth, but one thing's for certain: You have to ante up just to get in the game. This site from Signet Bank provides an extensive overview of the whole higher education money game. Especially useful is the book *Don't Miss Out: The Ambitious Student's Guide to Financial Aid*, which lays out the basics for finding funding and planning your finances over the long haul. Not only is the entire text presented online here (read "free"), but it's updated to coincide with the coming academic year. You can browse the chapter contents quickly, gleaning the information you need and disregarding the rest. Simple as that; no outdated book left moldering on the shelf, no trees sacrificed to your momentary needs. Just the info you need now, on your monitor.



Of course, this being a corporate site as well, the bank has its own interests. Electronic forms are provided so you can order student loan applications and the like; there's no pressure to do so, however. The biggest benefit for Signet is probably the good reputation its largess garners, not to mention the dollars the publicity could mean farther down the road. A square enough deal, seems to me.

Also useful to the college hopeful is the Financial Aid Time Line, which gives a prescribed chronology for securing tuition dollars; a concise budgeting worksheet; some tips on managing your cash flow; and a brief tutorial on building credit (tread carefully over that one, kids). When you've exhausted the resources here, there's a page of associated links to keep your surfing on track. There'll be plenty of time for distraction when you're basking in the cool shade of the ivory tower. –*PJ*



net rating:

forms, as well as background information on the company and the loans it offers, this site is the epitome of a corporate "advertising" entity. As such, there are no external links, which is disturbing. (Are they afraid you'll get information elsewhere?) Colorful image maps dress up every page, making the site attractive but slow. –*TG*

net rating:

NCRVE Home Page
http://vocserve.berkeley.edu/

While the Web site of the National Center for Research in Vocational Education's (NCRVE) could stand some good editing and a dose of spirit, it nevertheless provides useful information and progress reports on an alternative form of secondary education. Based at the University of California, the NCRVE Web site is linked to documents on the history and future of vocational education, all organized like a standard high school report and about as interesting. –*DR*

net rating:

Princeton Review
http://www.review.com/

The Princeton Review has gained a dedicated following by helping students exploit weaknesses in badly designed standardized tests. Its iconoclastic methods translate well in this Web site, where you'll find information about standardized tests, college entry requirements, and potential careers. While the content and technical presentation – including search engines and alphabetical indices – is first-rate, the scant graphics aren't, nor will you find all the information that's available in the books. But then, they have to get your money somehow, don't they? –*TG*

net rating:

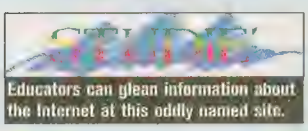
RAND Institute on Education and Training
http://www.rand.org/centers/iet/

IET is part of RAND, a non-profit public policy research organization with a larger Web site. The site's purpose is to improve American's public policy through research and analysis, and to train policy analysts. IET provides links to summaries on more than 55 RAND research papers. Some topics covered include worldwide communications, economics, education, crime, NATO, housing, game theory, terrorism, and water resources. Full-text for some of these papers are free, others are not. –*DR*

net rating:

STUDIE'
http://205.118.0.33/oes.html/studie'.html

It's so cute, with its rainbow colors, and to the point. Officially called School Teachers Using & Developing Internet Expertise, or STUDIE' (pronounced Stoo'-dee-ay), the Web site gives local educational information for the Alpine School District in Utah, as well as general information for all educators seeking to learn about the Internet. STUDIE' provides links to HTML lessons, e-mail emoticons and acronyms, and a growing list of educational hyperlinks. Links lead to sites on the core subjects, the arts, foreign language, health, government, religion, weather, shopping, newspapers and newsgroups. –*DR*



Educators can glean information about the Internet at this oddly named site.

net rating:

Technology and Learning: A Planning and Implementation Resource
http://www.ncrel.org/ncrel/tandl/techandlearn.html

Dense articles on how to learn about technology make this a serious site.

This is a guide for learning technology, taking readers from the goal-setting and initial research stages to the implementation and revision for improvement stages. It is not light reading. It offers diagrams and provides information in an outline format. –*DR*

net rating:

The Study Place
http://www.ilt.columbia.edu/academic/index.html

A budding philosopher's mecca, The Study Place is an online academic resource managed by the Institute for Learning Technologies of Columbia University. The college's faculty and doctoral candidates provide good critiques of ancient and modern philosophy. The site also includes links to brief biographies on ancient and modern philosophers, including Aristotle, Dante, Descartes, *et al.* –*DR*

net rating:

Theatre Education Literature Review
http://www.aaae.org/theatre/thfront.html

This is a home page containing 59 questions or topics about the theatre. There are also, thankfully, links to brief answers or explanations, including footnotes. Simple. Site creator, Kent Seidel, of the interdisciplinary PhD program of the University of Cincinnati, asks questions such as "Why study theatre?." In all, the site focuses on why scholars believe the theater can have a positive impact in education. –*DR*

net rating:

UK Lifelong Learning
http://www.transcend.co.uk/LIFELONG_LEARNING/

The message: Learning is fun, though this U.K. site sure isn't.

The Brits seem to have a ministry for everything, with sub-ministries and rooms full of clerks endlessly shuffling papers. Well, some of the clerks have turned in their green eyeshades for PCs at the Department for Education and Employment, Individual Commitment Division. (Yes, that's really its name, bureaucratic lex for "the state wishes you to stay in school and stop being a worthless git.") While the site is extensive, it suffers from a bone-dry officialdom that subverts the intended message: Learning is fun. –*TG*

net rating:

film

Fade In
http://www.best.com:80/~market/fadein/

Get some of the inside scoop on how to become a screenwriter here.

Think you want to be a screenwriter? Or maybe you already are one? Well, here's the online version of the magazine that claims to have the inside track on that particular biz. Like most online versions of newsstand rags, you don't get the whole tomato here, just a few slices to give you an appetite. A few images grace the articles, and the information is interesting even if you've never written a line of dialogue. As a whole, though, the presentation lacks the kind of extras that might persuade me to subscribe. –*PJ*

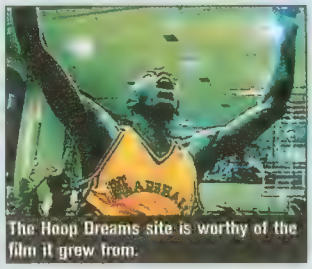
net rating:

Flicker
http://www.chapel-hill.nc.us/flicker/

Though named after a bimonthly film festival in Chapel Hill, NC, Flicker's Web site is anything but festive. The Web site provides filmmakers with information on Flicker's film festivals and types of Kodak film, including Super 8 and Regular 8 film. Also, there are first-person narratives of when so-in-so got his or her first Super 8 camera, or how much so-in-so loves "the rich color of Kodachrome ..." Unfortunately, for a Web site devoted to a visual art, the graphics are poor. –*DR*

net rating:

Hoop Dreams Page
http://www.mnonline.org/ktca/hoopdreams/index.html



The Hoop Dreams site is worthy of the film it grew from.

If you haven't seen the film, do so. If you have seen it, you'll like this site, a collaborative effort by PBS Online and KCTA's The Tube. Here you can catch up on the lives of the film's two heroes, William Gates and Arthur Agee; read about the controversy surrounding the documentary's exclusion from Academy Award recognition; see production notes from the seven-year project; and even download QuickTime clips. It's a well-designed site, worthy of the film. –*PJ*

net rating:

ShowBiz Ltd
http://www.showbizltd.com/

Apparently, there's no business like advertising. Every hyperlink leads one to lists, mailing labels, or a video-for-sale. Billed as "Your Connection to The Entertainment Industry," ShowBiz claims to have Hollywood's top agents, casting directors, personal managers, and ShowBiz Kids on file. However, its Web site delivers sales-pitch hype without goodies (no games, no pictures, no freebies, nothing). On the upside, nice font. –*DR*

net rating:

The City of Lost Children
http://spebbn.spe.sony.com/Pictures/SonyClassics/city/index.html

Though the movie was gorgeous, the site is more pedestrian.

A wayside stop on the vast Sony Online site, the City of Lost Children area features the French film by that name. Disappointing in relation to its more cohesive (but less expensive) predecessor, *Delicates-sen*, this movie was

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	A visual 10!	Rocket science material
Fair amount of content	Appealing	Smart
Needs more juice	A dog	Needs a brain

nevertheless inventive and visually stunning. Here, fans of the film can peruse notes on the making of the film, read an interview with creative duo Jeunet and Caro, and, best of all, download movie stills and video segments. But, all in all, the site is surprisingly text-heavy and a little dull. Worth a visit, but probably not a return. –*PJ*

net rating:

The Making of Citizen Kane
http://www.voyagerco.com/CC/gh/welles/p.makingkane.html

Learn the facts about the man behind and making of this movie classic.

Get this: Orson Welles was only 24 in 1939, the year he contracted to direct the landmark film *Citizen Kane* for RKO Radio Pictures. And did you know that Welles wore foam-cast noses for the part in order to improve the appearance of his face on camera? This site gives a straightforward, concise synopsis of the making of this classic, with excellent images and many more facts of the sort I've just cited. Part of the Voyager company's Web presence, the site is nothing fancy, but film fanatics will doubtless find a lot to like here. –*PJ*

net rating:

gaming

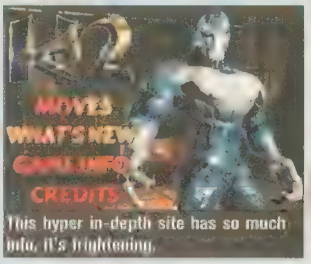
Hyper@ctive
http://hyperactive.com/games/index2.html

The online incantation of an Australian gaming mag, this site is sharply designed, and full of well-written, on-target reviews and previews, as well as some news and plenty of downloadable demos. On the downside, the previews section was pretty spotty, and the news was fairly out-of-date. I get the idea that Hyper@ctive is expanding rapidly (the site has want-ads for writers and Web people), so maybe by the time you read this, it will have staffed up and hit its stride. Hope so, 'cause this could be a great site. –*CC*

net rating:

Killer Instinct 2 by ICE
http://www.mindspring.com/~luisp/ki2/index2.html

Addicted to Nintendo/Rare's 2D arcade



This hyper in-depth site has so much info, it's frightening.

fighting game? Think *Killer Instinct* is the ultimate quarter snatcher? Then you'll do well checking out this page, which has all the fighting moves, combos, fatalities, humiliations, etc. for every character in the game, as well as general info about it. So in-depth, it's a little frightening. –*CC*

net rating:

King Link & Games
http://www.aros.net/~orme/multi.html

Best thing about this site is its extensive searchable library of games.

This site is wicked confusing, slow, and hard to navigate. That said, it does have an extensive mirrored library of easily searchable games (with descriptions) for many systems, as well as links to just about every search engine on the Internet. So I guess it's worth checking out, but be prepared for a little confusion at the outset. What ever happened to "about this site" pages? –*CC*

net rating:

The Duke Nukem 3D Arsenal
http://rat.org/duke3d/

FAQs, codes, links, and maps for the hottest new *DOOM*-esque multi-player game. There's a chat room too. Cool. –*CC*

net rating:

The McCannical Pinball Page
http://pilot.msu.edu/user/mccannr1/pinball/

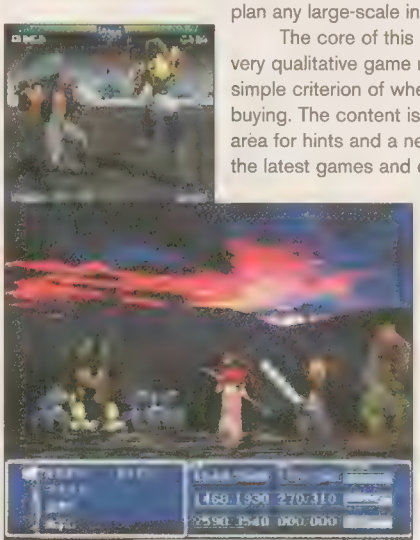
This ultra-complete pinball site will satisfy even the most avid gamers.

Yowza. This is the most complete pinball site I have ever seen, with plenty of FAQs,

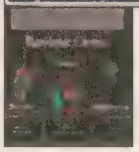
PlayStation Nation

http://pwp.usa.pipeline.com/~toenail/

From its introduction in September 1995 till the end of the year, Sony's PlayStation sold an estimated 500,000 units, proving itself a wildly successful gaming platform. Given half a million people and an estimated 1.73 friends per PlayStation owner, that means, let's see... there are 1,365,000 people who regularly play PlayStation games. By contrast, Belize only has a population of 214,058. By that calculation, PlayStation devotees – the PlayStation Nation, if you will – could easily take over that sunny, Central American country. PlayStation Nation, after all, comprises mostly young people with honed reflexes, while the citizenry of Belize is handicapped by all those infants and elderly. Think of it: A whole country full of PlayStation gamers; it would be the biggest test market in the world. Well, the PlayStation Nation Web site is not advocating anything like that. The site's creator and contributors – Toenail, Shroom, and Scarecrow – are too busy playing and reviewing PlayStation games to plan any large-scale invasions.



The core of this site is devoted to very qualitative game reviews based on the simple criterion of whether a game is worth buying. The content is focused, with an area for hints and a news section covering the latest games and developments regarding PlayStation. While some gaming purists refuse to ever look at hints or cheats, the majority of players will find this section useful. The news section is worthwhile for more than just the latest video games, as it also covers business topics in the industry.



Toenail, the Web master, has designed two versions of the site to accommodate both Netscape Navigator and Internet Explorer users. The Navigator version takes advantage of VRML plug-ins with a 3D logo, while the Internet Explorer rendition employs Microsoft specialties, like marquees and embedded wave files, giving each page an audio introduction. The different versions of the site make it a great way for discerning surfers to compare browsers. –*WKC*

net rating:

tip sheets, rule cards for various games, links to other sites, and a bunch more. If you like pinball, you'll dig this site. That noted, if you're looking for hip, hi-tech Web sites, this isn't one of them. It has only a modicum of graphics. Some scans of promo sell sheets, etc., would have been cool. Oh, well. This is rad just for the info. –CC

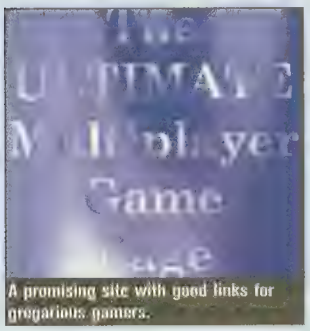
net rating:

The Track
http://www.boston.com/sports/thetrack/cgi-bin/horse_race.cgi

If this is the future of online games, we're in trouble... As a fun element of the Boston Globe's online boston.com domain, you get to pick a horse (they've got cool names, like C++ Biscuit and Man-O-WAIS), bet some money, and see if it wins in an animated race. As a technology demo, it's cool (the animation was pretty smooth, even at 28.8); as a diversion, it's fun a couple of times, mainly because of the horse names. As a game, it's perfectly dismal, but enough fun to check out once. –CC

net rating:

The Ultimate MultiPlayer Game Page
http://www.aros.net/~orme/multi.html



Though it was very much under construction when I visited, this page has links to popular online game services. Visitors will also find pages about popular multi-player games, like *War Craft II*, *Command and Conquer*, *Descent II*, *Duke Nukem 3D*, etc. The pages themselves have a skitch of info, and plenty of links to more. It looks promising, but it has a long way to go. –CC

net rating:

health

Alternative Medicine
http://www.alternativemedicine.com/

If you equate alternative medicine with crunchy granola and do-it-yourself food co-ops, you might be surprised by the look and feel of this site; it's clean to the point of sterility. Taking a pop approach to maintaining wellness, the site has excerpts from a print magazine called *Alternative Medicine Digest* (subscribe via a toll-free number). Topics cover all aspects of health, with a strong focus on longevity and self-healing. A number of promising areas were still under construction when I visited, including an online Yellow Pages for alternative medicine and a "Health Mall." –*MS*

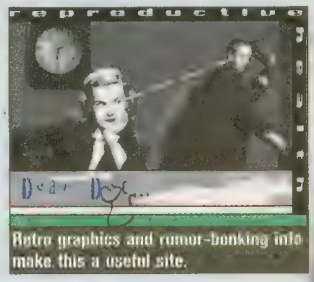
net rating:

Arthritis Foundation
http://www.arthritis.org/

Exercising isn't just about trying to look buffed; it's also a preventive measure against arthritis, a disease that causes pain, swelling, and limited movement in the joints. Currently, one in seven Americans (or 40 million people) has arthritis, and it's the number-one cause of disability in the U.S., according to the Arthritis Foundation's Web site. This sober page gives you lots of tips to avoid getting arthritis (slide rather than lift objects), connects you to local and international arthritis offices, and lets you write in with questions. It may also give you the extra boost you need to start a fitness program. –*MS*

net rating:

Dear Doc
http://deardoc.artifex.net/



This useful site is almost like having a candid, trustworthy young doctor at your disposal. The very hip and very anonymous Doc (his medical degree is from McGill University) eagerly awaits setting you straight about rumors, statistics, and historical facts. He has separate Dear Doc forums on women's, men's, and teens' health issues, and also addresses reproductive and parental concerns. Search for a topic, or post a question (replies appear on graph-like paper). An excellent resource. –*MS*

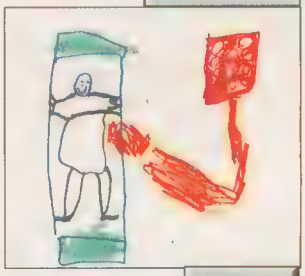
net rating:

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	A visual 10!	Rocket science material
Fair amount of content	Appealing	Smart
Needs more juice	A dog	Needs a brain

OncoLink

http://www.oncolink.upenn.edu/

This year, 550,000 Americans are expected to die of the disease – or 335,000 more people than died of cancer in 1971. Once a disease so feared and mysterious people whispered its name, cancer is utterly demystified at OncoLink, a site created by the University of Pennsylvania Cancer Center and the University of Pennsylvania Medical Center. It has the honor of being the first multimedia oncology resource on the Internet, and probably remains the best you'll find.



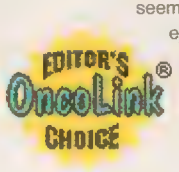
The content-rich, graphics-light site is a gold mine of links, with a great search engine to help you cope with the plethora of information. Perhaps the best way to get started is the Disease-Oriented Menus section, which provides general information and a list of medical issues related to its treatment. Here you can learn about chemotherapy and surgery options, as well as non-traditional treatments; get a list of cancer terms; and find statistical information. Topics are grouped by type of cancer for easy searching. Click on the "Special Report: The War on Cancer" to get a list of the top 50 cancer hospitals in the U.S. From there, click on a state or metro area to get a list of hospitals specializing in cancer care. It's a great place to begin your own battle with the disease.

For more specific information, visit the Medical Specialty-Oriented Menus. There's also a comprehensive list of links to journals and newsletters relating to cancer – everything from the *American Journal of Pathology* and the *Cancer Biotechnology Weekly* to *Cell Online* and *The New England Journal of Medicine*.

Perhaps most useful to patients is the Psychosocial Support and Personal Experiences area, which focuses on ways to cope with cancer and loss. The candidly shared and poignant experiences of cancer patients and survivors are chronicled here. You can also get a list of support groups for both patients and their families. Visit the Financial Issues for Patients section to get comprehensive information about billing, insurance, and assistance programs.

If you want to get in touch with clinical trials related to cancer, that's all here, too. This site maintains links to studies under way at the University of Pennsylvania and the National Cancer Institute, among others. You can also discover the latest cancer-related conferences and meetings going on around the world.

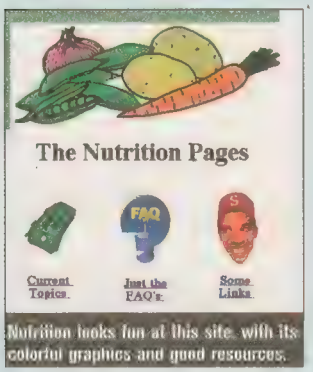
Plus, there's a comprehensive resource list above and beyond even what you find here. Because there's so much of interest, the OncoLink site creators even include a statement saying that you are free to make copies of material you find (as long as it's only for personal use). If all of it seems a bit overwhelming at times, you can rest your eyes on rotating artwork by children who are patients at the Children's Hospital of Pennsylvania. –*MS*



net rating:

Funkier Than Chitlins With Gravy and Grits

http://deja-vu.oldiron.cornell.edu/~jabbo/index.html



Nutrition looks fun at this site, with its colorful graphics and good resources.

Not only does this site have a great name, but it tackles a serious subject with fun graphics and a light approach. From the bright green peas that decorate the home page to the open forum devoted to food-related essays, there's a lot to study here. And if you've ever wanted official answers to your nutrition questions, check out the FAQ section, with its shiny police badge. Great link list, too. *–MS*

net rating:

Homeopathy

http://www.dungeon.com/home/cam/homeo.html

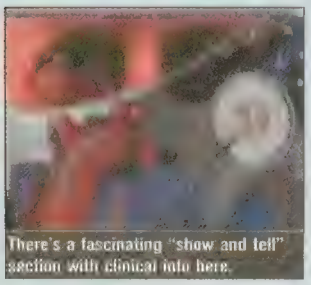
Everything you ever wanted to know about this alternative healing practice.

A giant collection of links to resources about this alternative form of medicine, this page is nicely put together, and very functional. Linked resources are divided into helpful categories: Resources/FAQs; Reference Library; Mailing Lists; News groups; Subscription Services; Computer Software; Commercial Sites; and Other WWW Resources. Don't buy into homeopathy – the law of similars, the single medicine, and the minimum dose? Well, you can still get the weather in Cambridge, from whence the site originates. *–MS*

net rating:

Medscape

http://www.alternativemedicine.com/


There's a fascinating "show and tell" section with clinical info here.

This information-packed site has daily news updates providing the latest information on everything from AIDS and infectious disease to oncology, surgery, women's health, and urology. If you don't want your information watered down, go directly to medical literature from peer-reviewed journals like *The AIDS Reader* (access is free, but you have to register). The Exam Room section (also requiring registration) offers up fascinating fare: a "show and tell" area for clinicians. (When I visited, you could see pictures of a 52-year-old woman's chest x-rays. Cool!). There are also interactive clinical training modules; a running column of clinical quiz questions; and more. *–MS*

net rating:

Power Walking

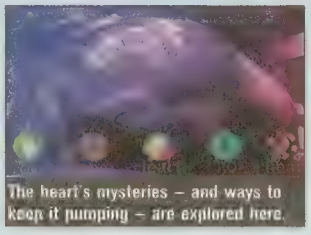
http://members.aol.com/RuthArtz/

The enthusiasm of this site is infectious. And why not? Walking is the kind of exercise that comes easily – you know how to do it, and you don't need special equipment. Just pick up the pace. There's a brief link list of "walking clubs," if you want to connect to folks on the same kick and a training program to prepare you for a marathon walk. If you don't mind lavender backgrounds and need an easy-to-follow fitness program, hoof it over to your computer and see for yourself. *–MS*

net rating:

The Heart: A Virtual Exploration

http://sln.fi.edu/biosci/biosci.html


The heart's mysteries – and ways to keep it pumping – are explored here.

The human heart is a tireless workhorse, beating more than two and a half billion times during an average lifetime. How does this life-sustaining machine keep pumping, and what can you do to maintain it? The folks over at the Franklin Institute Science Museum have put together a site that's at once a celebration of the mysteries of the heart and a resource for keeping it healthy. The long and short of it? Just like your mom always said: Get plenty of exercise; eat well; don't smoke; and stay off those drugs. *–MS*

net rating:

WomenCare

http://www.womencare.com/

Using a women's clinic metaphor, Ob/Gyn Nurse Practitioner Karen Lee creates a safe place on the net for women over 40 Her site, devoted to helping women get the most from their second 40 years, is chock-full of health planning resources that take into account medical and psycho-social aspects of health. Beside learning "amazing facts about women's health," you'll also be able to join a discussion group, get a hold of the Hot Flash of the Month Club newsletter and the Men oh Pause Survival Kit. *–MS*

net rating:

Your Health Daily

http://www.nytsyn.com/med/

The New York Times Syndicate has put together a giant compilation of health-related news stories. There are always half a dozen or so late-breaking news stories up-front, plus a list of topics, ranging from AIDS and alcohol to depression and diabetes to smoking and women's health. A good search engine helps manage the extensive material. You can also access discussion groups on topics of interest, which put a human face on the health news of the day. *–MS*

net rating:

humanities

English as a Second Language

http://www.lang.uiuc.edu/r-li5/esl/

This directory, though lacking in original content, is a good resource.

Habla Ingles? If not, then English as a Second Language is a good place to start learning how to say "where's the bathroom" like an anxious American. The page serves as a directory of links to other ESL sites broken down into categories (listening and speaking, reading and writing). It also offers pointers to other ESL students' home pages. Not much by way of original content or graphics, this directory is nevertheless more purposeful than most language spots on the Web. *–BJB*

net rating:

Etymology of Names

http://www.engr.uvic.ca/~mcampbel/etym.html

Next time you need to name something, check here for good ideas.

Fido, which literally means "I am faithful," might be a more suitable name for a child than Howard, defined as "ewe herder." On the Etymology of Names site, almost anyone, from Aaron to Zoe, can research the origin of his or her name. There are plenty of surprises. Doris, for example, means "sacrificial knife." What a Bonnie site! *–BJB*

net rating:

Everything Postmodern

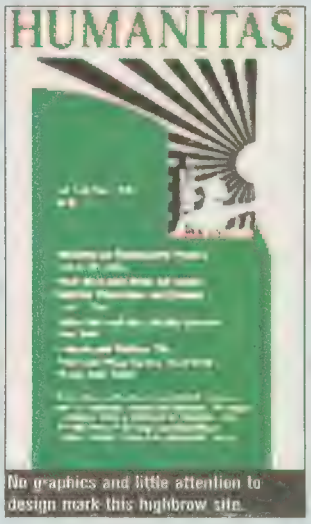
http://helios.augustana.edu/~gmb/postmodern/

Guzzle that fifth cappuccino, grab another pack of Gitanes, and dive into this amazingly comprehensive resource of all things PoMo. The trendiest of French Intellectuals are represented here – Baudrillard, Foucault, etc. – with plenty of links to keep even the most critical critical theorist occupied for years. (There is *plenty* of postmodern verbiage being spewed throughout the net – on Web sites, FAQs, zines, academic journals, and the requisite alt.postmodern newsgroup.) Be ready for some serious deconstructions when launching off from this Web construction. Bring yer hard hat! *–DP*

net rating:

Humanitas

http://www.access.digex.net/~nhi/hum.htm



No graphics and little attention to design mark this highbrow site.

Humanitas makes most highbrows look like a bunch of Gilligans. From the National Humanities Institute in Washington, D.C., this journal has articles on postmodern politics, reason, and imagination. The only entertaining part of the site is the poem about murderous leeks narrated by a paranoiac in the fridge. With no graphics or attention to design, this site is bound to lose most of us entertain-me-while-teaching-me types. *–BJB*

net rating:

Medical Humanities

http://mchip00.med.nyu.edu/lit-med/medhum.html

Find summaries of the plots of novels with a health or medical twist.

At first glance, Medical Humanities seems to be an easy-access database with an elaborate bibliography of articles and texts, but visitors will quickly realize that the main focus of the site is the promotion of certain classes at NYU. No good student of medicine diagnoses a problem without taking a closer look, however; put the site under a microscope and you'll see a useful little amoeba called "Literature and Medicine," which has a large listing of summaries on novels about diverse topics from AIDS treatment to the confessions of an opium addict. *–BJB*

net rating:

Nizkor

http://nizkor.almanac.bc.ca/

This is a site with a mission: Confronting

National Archives and Records Administration

http://www.nara.gov/

While the Web experience is always a little surreal, there is something even stranger about visiting this site. Something about daguerreotypes on my monitor. It's like an H.G. Wells type of thing, you know? Like time travel – frigging eerie. Downloading a photograph of General Custer, I felt like I could tweak the S.O.B.'s mustache. Never mind that the image was grainy and obtuse. The tasseled buckskins and longish hair gave him away, and it was like a piece of tangible history: Like, there he is, General Custer. In another, you could tell Geronimo by his high cheekbones and disdainful scowl. Full-screen, that face is enough to make you shudder. Image after image from the American West database – just one of NARA's online offerings – lent the past this kind of intimacy.

As someone who sits rapt through every episode of PBS's *American Experience* series, I found that this site cast a similar spell. And while I might have classified it as a resource, my visit to NARA felt more like a self-guided museum tour than a trip to the library. That said, the site is divided, really, into exhibits and searchable databases, so genealogists and other researchers may come away feeling differently.

For me, however, the most engrossing features are in the Online Exhibit Hall, where diverse relics from the national experience are on display. A section devoted to World War II propaganda posters was both amusing and enlightening. In another section, called American Originals, you can read the police report on the Lincoln assassination as well as Nixon's letter of resignation. Still, my favorite is the American West Online section, which, though still under construction at this writing, provides hundreds of photographs dating back to the 1860s. In the coming project, NARA promises to add a "broad range of multimedia materials" to this kiosk.

As a whole, the NARA site is vast, eclectic, and just a little bureaucratic. Educators should pay a visit to the Digital Classroom; conspiracy buffs will be interested to know about the searchable John F. Kennedy Assassination Records Collection; researchers should know about CLIO, the National Archive's Information Server (at **http://gopher.nara.gov:70**). If the past is not your thing, current government information such as the *Federal Register* may also be accessed online at NARA, as may the impressive-sounding Government Information Locator Server. I know I'll return here just to see the changing exhibits and to escape once in a while. *–PJ*

net rating:

The Nizkor Project

Nizkor is concerned with remembering the victims of the Holocaust.

and debunking the myths and misinformation propagated by the revisionists who would suggest that Hitler's pogrom never occurred. Nizkor actively engages – or attempts to engage – the persons who espouse such nonsense online, and provides a plethora of information (see the Shofar FTP archive, which will soon be available in hypertext) to counter their claims. Dedicated not just to the six million Jewish Holocaust victims, but to the estimated 12 million Jews, gypsies, Poles, homosexuals, *et al.*, murdered by the Third Reich, this site deserves attention. *–PJ*

net rating:

Post Modern Culture

http://jefferson.village.virginia.edu/pmc/contents.all.html

With article titles such as "Pee-Wee Herman and the Post Modern Picaresque" and "Play It Again, Pac-Man," the Post Modern Culture site has to be hip. Poems by digital demona Kathy Acker and a special MOO just for readers show this journal off as anything but arrogant. PMC publishes six volumes of fiction, essays, poetry and reviews online without skimping on content and design quality. *–BJB*

Despite its ultra-hip topic, this site is anything but arrogant.

net rating:

The Gypsy Lore Society

http://hamp.hampshire.edu/~ratS88/gls/

The Gypsy Lore Society has a lot to learn from the people it celebrates. Gypsies are historically known for their colorful vagabond lives, whereas this site will be known for its bland little existence. The Society publishes both a journal and a newsletter, but doesn't bother to put the articles online. None of the information of value is in hypertext. Gypsy Lore enthusiasts will be better off following one of the other resource links to a different site. *–BJB*

net rating:

The Logical World of Etymology

http://www.phoenix.net/~melanie/thelogic.htm

Discover the hidden definition in every word by dissecting it. Find out that "honey moon" had a bitter inspiration, while "hot dog" had a pretty amusing one. Learn some Latin and Greek prefixes, or travel to other related sites. Unfortunately, graphics take a backseat in this text-o-phile page, but most of us will be too busy looking up our favorite words to notice. *–BJB*

net rating:

The Stanford Electronic Humanities Review

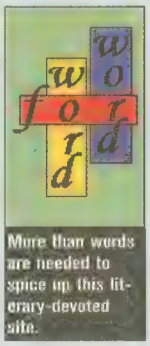
http://shr.stanford.edu/shreview

The folks at Stanford never stop thinking, and this journal proves that even more students and faculty skip sleeping. Read provocative essays about artificial intelligence and its impact on the humanities; the merger of cognitive science and literary criticism; and much more. As with most academic-driven humanities journals, Stanford's largely ignores design, but at least there's an effort made to join the future of new media by creating an image-map table of contents. *–BJB*

net rating:

Word For Word

http://www.peg.apc.org/~toconnor/welcome.html



More than words are needed to spice up this literary-devoted site.

Word for Word needs some GIFs and JPEGs. This site, which promotes the column of the literary editor of *The Courier-Mail Queensland* newspaper, does little to spark much interest. Void of any surprises, Word for Word has a difficult-to-read format and zero design elements. There's more to good Web publishing than just words. *–BJB*

net rating:

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

lifestyle

Bread
http://wanda.pond.com/~jandock/

Despite the enticing graphic, this site needs some leavening.

Apparently, Bread is a Christian "community" formed by young adults in Philadelphia. According to Bread's sparse Web site, this group is interested in developing Christian ministries and social service programs like day care, counseling, and arts therapy. And they're looking for collaborators. Umm, what else about this site? Ummmm... Ummmm... *–DP*

net rating:

Crystalian Stabalysis
http://www.public.asu.edu/~amerist/

Celtic mythology enthusiasts can find their kindred spirits here.

Very mysterious... The Crystalians seem to be a society of Celtic mythology enthusiasts involved in exploring and creating their own fantasy world of clans, elves, and dragons. Very Renaissance Faire meets *Dungeons and Dragons*, with no clear indication as to what the Crystalians actually do on a daily basis. The only Crystalian clan so far is the "A'Toll," and it claims to be "a clan devoted to the attainment of knowledge and understanding. As a result," the clan continues, "we are here on the Internet doing such." Aren't we all... *–DP*

net rating:

Dance To The Sound of a Suicide
http://hamp.hampshire.edu/~temS95/gothic.html

Yes, we're talking Goths here – black eyeliner, Bauhaus, blackhair, Bela Lugosi (is dead), black clothes, etc. But I grew up on the Sisters of Mercy and Christian Death, so there's always a place in my heart for children of the night. Especially this one! Tara Morrison has a sense of humor, something lacking in most gloom and doom types. "I don't drink blood. And I don't want to," she writes in one of many stabs at the hyper-pretentiousness and absurd fantasization so typical in goth culture. This page is primarily an annotated list of goth sites on the net – Bauhaus pages, Anne Rice resources, etc. But Tara's wry, no-bull attitude makes this site more interesting than almost anything she links to. Tara, will you meet me in the cemetery some night? *–DP*

Gothic gear and makeup adorn this compilation of links to Goth sites.

net rating:

NUDE2000
http://www.nude2000.com/

Keep your pants on, people, we're talking nudists, not nymphos. You know – nude volleyball, size doesn't matter, it's healthy and natural, etc. Nude 2000 is a nudist catalog/resource guide promoting "social nudism in the 21st century." Browse the list of videos of nudist adventures and resorts from all over the world before subscribing to *Naturally Magazine*, a publication for those choosing the "let it all hang out" lifestyle. A tasteful if slightly boring site, I bet its hit count is through the roof! *–DP*

net rating:

Phi Delta Theta
http://www.PhiDelt-GHQ.com/

It may be hard to imagine that the kegger at the Phi Delt house comes from a fraternity with a long, upstanding tradition of brotherhood, academic achievement, and political activism (The Phi Delts at Miami University, 1848, were in part responsible for getting a bad seed university president expelled). But for those in doubt, take note of the Phi Delt Web site. It's very well designed with a comprehensive section on history, a chapter locator, resources for alumni, and of course, a merchandise mart for all your branded needs. It's a good one. *–SK*

net rating:

Pinkboard
http://www.pinkboard.com.au/

Living queer in Australia? Make sure to check out the Pinkboard. This site is packed with info about where to go (clubs, theaters, etc.), who to go with (an extensive personals area), and what to do once you get there (safe sex info). While some of the sections are a little slow, with content generated from CGI scripts, the icons are clever, and the info is regularly updated. There is also a slick Frames interface, but you get the option as to whether you want to use it. Tres cool! *–SK*

net rating:

Platypus Family's Playroom
http://www.orst.edu/~dickt/playroom/playroom.html

Lots and lots to do here: stories to read, games to play, and more.

It's full, thick with stories (that read themselves "with a properly configured Mac"), songs to sing, games to play, and activities for families. And, as a super bonus, the site also has some sections translated into Spanish. Que Bueno! If you like the content, there's a CD-ROM on the way. Just add your name to a list to receive notification. The only drawback: Children's Playroom was created as one *very* long scroll down page, instead of multiple pages with hyperlinks, so the download can be a long wait. *–SK*

net rating: *overall:*

Pun Yin Metaphysics
http://plaza.interport.net/pymetaphysics/

If you want to make sure your home is auspiciously placed, go here.

This site is dedicated to the ancient study of Feng Shui, the historic Chinese discipline of "manipulating the invisible and subtle energies of the cosmos, or 'Chi,' to create harmony between man and his environment." This is some heavy stuff, actually, dealing with the placement of objects and buildings in their "most auspicious positions" and the use of specific colors for "balance." (Example: Seeing your stove when you first walk inside creates bad energy). For a few hundred dollars, Master Pun Yin will look at blueprints and photos of your home or office (if it's in New York), and give a Feng Shui analysis. Maybe true, maybe hoax or superstition, but damned interesting. *–DP*

net rating:

Self-Defense, Street-fighting & Close-Quarter Battle
http://www2.gsu.edu/~gs01cwb/fighting.html

If you're going to win a fight against a vicious street tough, you're going to need a lot more than a few karate lessons – you're going to need a whole new world view. Christopher Benson helps you mentally prepare for seemingly impossible-to-win fights. This is not a primer on specific moves; rather, it's a guide to overcoming difficult situations with confidence. You'll learn all about pain and fear management, mental explosiveness, and pure, unbridled aggression. Lots of text, all of it interesting. *–JP*

net rating:

Vegan Action
http://www.vegan.org/

Just say no milk. No meat. No eggs. No animal or dairy of any kind! That includes any clothing or products made from animals – no leather, silk, or hair conditioner made with animal enzymes. The Web site will keep vegans clued in to current news items, political rally's, and the spectrum of all that is vegan in this omnivore world. There's also a catalog in case you want a "Live Simply" or "Just Go Vegan" t-shirt. The links to the cookbooks are supercool. *–SK*

net rating:

literature

Don Delillo Web Site
http://edziza.arts.ubc.ca/english/500web/peter/Delillo.html

Sorry, but this site is dead. There is too much gray matter. The Web site gives an unenthusiastic list of Don Delillo's fictional works, critiques, and links to other Delillo sites. Unfortunately, something as basic as a biography is missing. The research team at the University of British Columbia's English department could do a much better job. *–DR*

net rating:

Gabriel Garcia Marquez-Macondo
http://www.microserve.net/~the quail/libyrinth/garcia.marquez.html

Get the scoop on magical realist Gabriel Garcia Marquez.

In 1982, Gabriel Jose Garcia Marquez won the Nobel Prize for literature. A native of Colombia, he now lives in Mexico City and is considered a pioneer of style known as "magical realism." The site provides background information on the history of Colombia, and examines how that history has influenced Marquez's fiction. It also includes notes on Marquez, a bibliography of his works, Marquez-related images, and links to other Marquez Web sites. *–DR*

net rating:

Life is a Joke
http://www.netreach.net/people/bishop/lifejoke.html

You won't find one-liners here; instead, there's a list of funny literature.

This is a large mail-order list of bizarre or comical literature. The title is a bit misleading. It is not a site of one-liners. One can find *Your Revenge is in the Mail*, a book about making someone's life hell by mail, for $10. Also, there are noted writers like William Vollman, whose book, *Whores for Gloria*, is available in hard-cover for $6. There are even fan magazines on bouncing caskets, and artwork dealing with "black blood," otherwise known as coffee. Nearly all items are under $20, and most items are even under $10. *–DR*

net rating:

Mississippi Review Web Edition
http://sushi.st.usm.edu/~barthelm/index.html

Sometimes simple *is* better. Mississippi Review uses shaded rectangular boxes and a few diagonal lines to draw onlook-

Updated monthly, MRW has poetry, fiction, and more.

ers into its horizontal list of established writers. Set off by year and month of online publication, works consist of poetry, fiction, interviews, and essays – the same kind of stuff that's in the print version of the Mississippi Review. But unlike the magazine, which is a biyearly publication, the Web site is monthly. MRW promises to incorporate graphics, sound, and video into the format soon. Featured authors include Jamaica Kincaid, Dinty Moore, Leon Rooke, and Ian McEwan –*PJ*

net rating:

Scrivenery Literary Awards

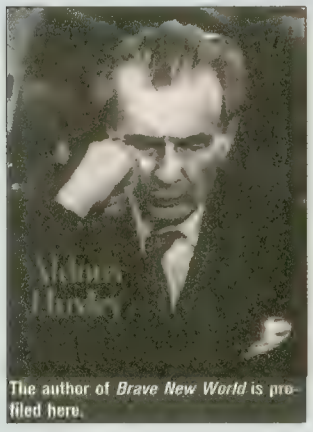
http://www.hti.net/www/hwilliam/awards.htm

Here's one for English lit majors and prospective "Jeopardy" contestants. The Literary Awards section is part of Scrivenery's larger Web site, which offers resources for fiction writers. The awards' site lists the winners of the Nobel Prize for literature, the Pulitzer Prize for fiction, the National Book Awards for fiction, the PEN/Faulkner Award for fiction, the National Book Critics Circle Award, and the Booker Prize. Answer: He won the Nobel Prize for Literature in '65. Question: Who is Michail A. Sholokhov, Alex? –*DR*

net rating:

SOMA-web

http://www.primenet.com/~matthew/huxmain.html



The author of *Brave New World* is profiled here.

Matthew, the site's manager, makes one mistake in his Web site on English novelist Aldous Huxley (1894-1963): He reverses the print, making the background color black and most of the text white. Unfortunately, when the information is sent to the printer, the machine interprets everything as white, thereby making the print invisible. Nevertheless, Matthew provides an entertaining look at the novelist best known for *Brave New World*, the 1932 satirical work about a society controlled by technology. Also, it contains a hypnotic photo of Huxley and links to other Huxley-related sites. –*DR*

net rating:

The Book review Quicklist

http://www.well.com/user/paulkies/QUICK.html

A collection of brief book reviews, the Quicklist gives you a chance to add your own criticism, or respond to what's there. As the great majority of the reviews are unfailingly positive (people plugging their favorites), and others are misinformed, this is probably not the best place from which to get ideas about what to read next. Some may find it refreshing to read what other dilettantes think, but I suspect the real appeal will be for those who can't wait to recommend their favorite read to anyone who will listen. –*PJ*

net rating:

The Master Works of Western Civilization

http://www.eskimo.com/~masonw/gwwc.htm

Are you civilized? Are you sure? Well, for a crash course in the liberal arts without the tuition and fees, visit Mason West's home page. His is the mother of all syllabi. There are 31 printed pages' worth of authors and their works here; many connect you via hyperlink to the content. Unfortunately, the site could use better organization. The lists, of which there are two, mainly feature ancient Greek, ancient Roman, European, and American works. –*DR*

net rating:

Toni Morrison

http://www.en.utexas.edu/~mmaynard/Morrison/home.html

This visually pleasing Web site focuses largely on *Beloved*, Toni Morrison's 1988 Pulitzer Prize-winning novel. However, there are also links to Morrison's biography, as well as photographs of her, and short narratives on all of her works. The site includes quotes from the author speaking about her art, and should provide a rich experience for both avid Morrison fans and newcomers alike. *DR*

net rating:

WPA Life Histories

http://lcweb2.loc.gov/ammem/wpaintro/wpahome.html

This Web site provides a history of the government-sponsored Federal Writers' Project, part of the U.S. Works Progress (later Work Projects) Administration (WPA), from 1936-40. The site also offers an excellent search engine that lets you scour some 2,900 works from that

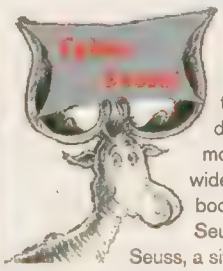
CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	A visual 10!	Rocket science material
Fair amount of content	Appealing	Smart
Needs more juice	A dog	Needs a brain

Cyber Seuss

http://www.afn.org/~afn15301/drseuss.htm

Chances are, some time around age four or five, you begged your mom for a heaping plate of green eggs and ham. You had no idea what turned the eggs green, and you weren't too hip to the concept of pork products, but you wanted your green eggs and ham, gosh-darned it, because one Mr. Sam I Am didn't want his, and you knew he was missing out on some fancy eats. So your mom fried up some ham, and threw some spinach into some scrambled eggs, and served them to you on an enchanted platter.

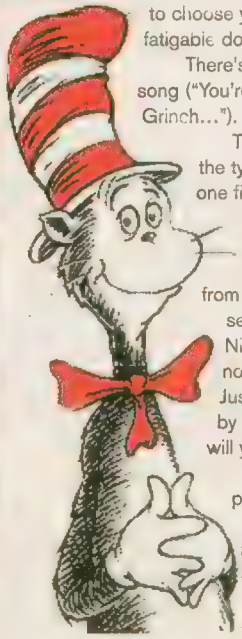
And then your mom tried food coloring in the eggs after your spinach sensors went off, and you ran screaming from the breakfast table.



The object lesson behind *Green Eggs and Ham* is just one of many espoused by the late Ted Geisel, a.k.a. Dr. Seuss. Geisel died in 1991 at the age of 87, but his rhyming morality tales continue to influence kids worldwide. He won a Pulitzer prize in 1984, and his 47 books are published in 18 languages. The entire Seussian phenomenon can be found at Cyber-Seuss, a site that offers hoospiferic helpings of Seuphonius tripitude.

The site's main draw is its 15 online story books. You'll find standards like *How the Grinch Stole Christmas* and *Yertle the Turtle*, as well as more obscure tales like *The King's Stilts* and *Thidwick the Big-Hearted Moose*.

After you envelope yourself in nonsense words and delightful rhyming schemes, you can skip on over to obscure curios like Seuss-oriented ASCII art and a contest asking you to choose your favorite among The Grinch, his indefatigable doggie Max, and little Cindy Loo Who.



There's also a sound file of the Grinch theme song ("You're a foul one, Mr. Grinch...").

The site deals in the type of minutiae one finds only on the Internet; to wit, in 1972, pundit Art Buchwald borrowed from Geisel the following sentiment: "Richard M. Nixon, will you please go now! The time has come. The time is now. Just go. Go. Go! I don't care how. You can go by toot. You can go by cow. Richard M. Nixon, will you please go now!"

Indeed, Geisel was a man of moral and political conviction.

Both children and adults will find much to learn from this endearing, whimsical and burgeoning Web site. –*JP*

net rating:

era. In the late 30s, more than 10,000 writers from across this country wrote biographies on Americans of various ethnic and religious groups, occupations, and regional locations. The result is a first-hand glimpse of 1930s Americana. Worth a trip. –*DR*

net rating:

media

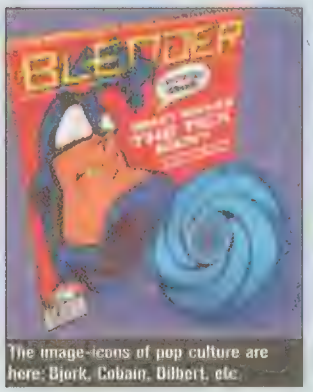
Baudeville
http://exp1.mobius.net/baudeville/

You're sure to find a laugh at the Baudeville site.

This commentary-as-comedy site is humorous from the get-go. Featuring the Troubletown comic by Dangle, and Too Much Coffee Man by Shannon Wheeler, the site boasts some very funny material! And the layouts and design are tasty. This one is sure to give up a laugh. –*JS*

net rating:

Blender Web
http://www.blender.com/



The image-icons of pop culture are here: Bjork, Cobain, Dilbert, etc.

Blender Web is the online counterpart to *Blender*, a digital entertainment magazine. Follow image-icons to the zine's sections: Menu, Daily Blend, Pop Chop, Digest, Blend In, and Music. Inside you'll find the typical pop culture suspects: Cobain, Dilbert, Bjork, *et al.* Although the site is full of reprint articles from the CDs, it suffers from some of the limitations affecting the online medium – audio and video are simply better integrated on discs. –*JS*

net rating:

Cyber Culture Magazine
http://www.cvp.com:80/cyber/

The theme of issue 3.0 is "cyberlove and friendship," and to get the ball rolling, it starts off with an essay called "The Dark Side of Cyber Romance." Ooosh... Hold up: Frivolous use of the word "cyber" is a serious faux pas! Ah well... The site has a daily column by Dave Daily. (Dave was moving the day I visited, though, and the column was on hold.) The fiction was not spectacular, but you're encouraged to submit your own, so maybe the caliber will improve with your visit. –*JS*

net rating:

Everton's Genealogical Helper
http://www.everton.com/

More a way station for surfing genealogists than an online version of the magazine, this site is nevertheless deceptively smart from a sales standpoint. Offering limited free use of Everton's database and extensive links to other sites around the Web, it's bound to attract repeat visitors and, unless I miss my guess, some of those repeat visitors, happy with what they've seen, are bound to bite at a subscription sooner or later. –*PJ*

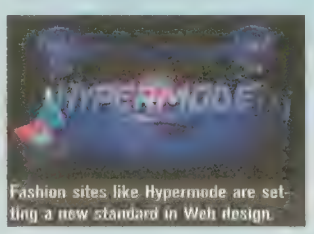
net rating:

Fair Play
http://rmii.com/~jkelin/fp.html

Updated bimonthly, Fair Play's features examine the conspiracy theories surrounding the JFK Assassination. There are original documents from the Assassination Records Review Board, tape recordings of Lee Harvey Oswald, and items concerning the possible affiliation of the Freemasons. The content consists primarily of huge articles written in dense legalese, and will therefore be of little interest to the casual surfer. –*JS*

net rating:

Hypermode
http://www.hypermode.com/



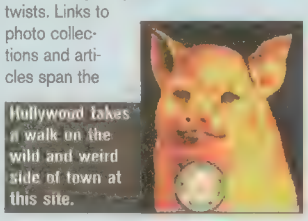
Fashion sites like Hypermode are setting a new standard in Web design.

People are gonna start taking their cues from the fashion world as to what a Web site can do, methinks. Don't know why it is, but a good many fashion pages are way, way Web-savvy, and nice to look at. Same holds true here at Hypermode, where the page functions like a greased preflambulator; that is to say, really well. As for content, while it amounts to a lot of pretty pictures, it'll link you up to a host of other eyeful pages, most slickly. (All right, so I made up "preflambulator," but I stand by the rest.) –*PJ*

net rating:

PIG Intertainment
http://www.pigweb.com/

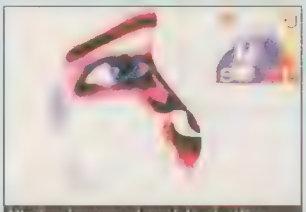
This Hollyweird publication, like its hometown, is very busy and full of strange twists. Links to photo collections and articles span the


Hollywood takes a walk on the wild and weird side of town at this site.

tres-LA content, stuff like The Digital Art Space, the Parficial Pig cartoon strip, and the photography of Gary and Pierre Silva. The Silvas' Fetish gallery gets pretty far out there. I didn't dare click the thumbnails for close-ups. The Fine Art area seemed more my speed – a section containing black-and-white photos of leather-clad folks and Gothic statues. –*JS*

net rating:

Ruse
http://www.ruse.com/


Alluring images of models strutting their stuff adorn the pages of Ruse.

See Hypermode. More of the same here, (though not quite as slick yet): alluring images of models doing what they do best and links to other outposts in the fashion galaxy. Like Hypermode, it takes full advantage of Frames, but hasn't yet incorporated Java. Some departments are still under construction, but there's no shortage of things to see. Still playing catchup with Hypermode, but a top-notch entry all the same. Oh, and I like the title, but the subtitle – "Aesthetics over Ethics"– has echoes of fascism. –*PJ*

net rating:

Spank
http://www.cadvision.com/spank/

This zine includes musician interviews and essays on vegetarianism.

I don't get the relationship between Spank's title and its content, nor are the subtitles much help: "Alien Landing Zone" and "Youth Culture Online." Features include musician interviews, essays on topics like vegetarianism and the fur debate, as well as a regular column by Daria Kenin, called Ravings. The layout is a little ragged, and text is a bit hard-to-read against the baby-blue background. The site's creators knew enough to list 'Win Free Stuff" first in the table of contents. The prize: A matching CD and Mousepad set. Right on. –*JS*

net rating:

STUMP
http://www.ipahome.com/stump.html

This political zine site boasts a pretty nifty Frames set-up, including a mildly humorous attraction that's titled Build Your Own President. Scrolling horizontally in two separate Frames allows you to match Pat Buchanan's eyes with, say, Lamar Alexander's chin. Or whatever. There's also some trenchant political commentary, by region. –*PJ*

net rating:

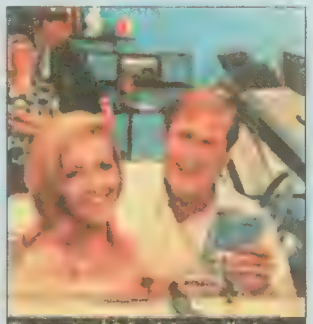
music

10 Things Jesus Wants You to Know
http://weber.u.washington.edu/~ten/

Not a bible-bouncer's home page, but a rad Washington state-based punk zine. The list of upcoming shows in the Pacific Northwest, including basement and garage gigs, makes me yearn for the pit, while interviews with the Jesus Lizard, The Melvins, and Ward beckon me to the record store. With 10 Things' fresh design, clear navigation, and fine zine-quality writing, hardcore indie music fans couldn't ask for more. As punk continues to be pulled into the mainstream, this zine is one to watch. –*DP*

net rating:

8-Track Heaven
http://pobox.com/~abbot/8track


The mania of 8-track tape collectors quickly becomes apparent here.

Browsing the Web can be a personally broadening experience, exposing one to art, literature, and culture. Sometimes, it just gets weird. Not many people realize that a sizable group in the U.S. is devoted to collecting 8-track tapes, but at the 8-Track Heaven Web site, the extent of this mania becomes apparent. There are tips on maintaining tapes and players, and articles about the history of the 8-track and the special relationship between cars and 8-tracks. The site is organized along the same principle as an 8-track tape index, demonstrating excellent consistency with the subject matter. –*WKC*

net rating:

Christian Music Online
http://www.cmo.com/

Gospel and inspirational music are the highlight here.

Even if you're not down with Christianity, gospel and inspirational music can be a

fun listen–if it's good. Everybody from traditional religious musicians to singer/songwriter types to Christian rappers (seriously) and Metalheads (swear to God!) are reviewed and represented here. (Don't worry, no Stryper). The writing is fluffy PR-type stuff, the design is kind of bland, but there's a lot of information, plus detailed tour itineraries for Christian music fans. And don't be fooled – there are plenty. –*DP*

net rating:

Jazz Online
http://www.jazzonln.com/

The premier entryway into the world of jazz on the Web is Jazz Online.

Since its emergence 50+ years ago, jazz has been perennially hip. Jazz Online is the Web's premier entryway into the genre, featuring interviews, biographies, CD reviews, Xing-streamed radio, and insightful profiles. A recent gem, for example, is a conversation with Ravi Coltrane, who does not want to be known as his father's son. Elegantly designed and knee-deep in information, Jazz Online is the coolest virtual jazz bar on the net. –*DP*

net rating:

Res Rocket Surfer
http://www.resrocket.com/

Jam in real-time with users from around the world at RRS.

Res Rocket is a perfect illustration of why the Web excites creative minds; namely, the potential for collaboration between artists around the world. Res Rocket's ingenious software enables users all over the world to jam in real-time as part of the Res Rocket Surfer virtual band. Via real-time MIDI signals, synthesized soundscapes from London can be overlaid on jungle drums from San Francisco, for example, to create true World Music in the MOO-based virtual worlds of RRS. It's free to join, and the only requirement is a desire to be another neuron in this evolving performance of the Third Mind. –*DP*

net rating:

Rhino Records
http://cybertimes.com/Rhino/Welcome.html

Web sites have made leaps and bounds in design quality from the early days (about two years ago) of blue links and blinking text. The current look is slick, with fonts and graphics seamlessly integrated into the design gestalt. Unfortunately, the Rhino site hasn't experienced the same evolution. This is a first-effort catalog of Rhino's CDs and tapes that doesn't really describe the music or the performers, nor does it provide sound clips. And, while the music is for sale, there's no provision for online ordering. Rhino does claim to be working on a real Web site, however. –*WKC*

net rating:

Sonic State
http://www.sonicstate.com

An A&R game lets you decide the fates of rising and falling music acts.

With a fine British sense of streetwise humor a la the *New Music Express*, Sonic State is something of a cross between a hip music fan zine and an irreverent industry resource. Much fun is the directory to rock and roll hotels, from the Chelsea to the Chateau Marmont and across the world. Big Wig wannabes will also enjoy determining the fate of rising (or falling) acts in the Let's Play A & R Game. MTV Online should take a look at this site. A close look. –*DP*

net rating:

Surfdog
http://www.professionals.com/~surfdog/

Southern California bands whose styles range from rock to reggae are here.

Surfdog is a company producing products for the surfer lifestyle – i.e., in-the-ocean type surfing, not via computer. Surfdog doesn't sell wet suits or boards, however. Music and clothes that complement the surfer lifestyle are its specialty. The music isn't traditional surf music, but a range of Southern California bands that go from rock to reggae. CDs by some of the bands can be ordered via the site, and sound clips allow cagey consumers to preview the music. A number of the links didn't work, but the graphics and organization were nice. –*WKC*

net rating:

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

pastimes

Airship
http://spot.colorado.edu/~dziadeck/airship.html

News and photos regarding Zeppelin aircraft are enthused about here.

This site and it's sister, Zeppelin, are dedicated to blimps, balloons, derigibles, and zeppelins. Largely, the site contains lists – either pointers to other sites, or extensive bibliographies. There is also some news on new developments, some photos, and a modicum of background info on specific subjects, like the posters used to advertise transatlantic zeppelin flights. A good place to start learning about these wonderful aircraft. –*CC*

net rating:

Art Cars
http://www.artcars.com/home.html

Never seen an art car? Go here, for lots of pics and events info.

Art cars. You've probably seen one or two – a VW bug done up to resemble a giant pumpkin, an old Dodge Dart covered with buttons and lights and whirligigs, an unidentified chassis supporting a giant plastic shark. Anyway, this is the fan zine for them. Tons of pictures, info on specific cars, events, and more. Trés cool. –*CC*

net rating:

Barbies: The Dolls, the Dish and the Dollars
http://www.servtech.com/public/pippa/barbie

Lovingly put together, this site champions Barbie and her clothes.

Wow, tons of Barbie stuff, with lists of which Barbies the Web master owns, links to other Barbie pages, Barbie news, and a complete Barbie price guide. If you like Barbie, especially if you like your Barbie with a touch of camp, you'll dig this. If you're like me – you think Barbie is evil incarnate, responsible for giving young girls image complexes, as well as reinforcing wretched gender stereotypes – this site could be like a trip to a precious, pink, plastic hell. To each his or her own, I guess. –*CC*

net rating:

Bearly a Page
http://www.aa.net/~urizen/bears2.html

Find pics of Teddy Bears, pics of pics of Teddy Bears, and more here.

I'll say. Teddy Bears. Sweet, cloying, cute teddy bears. Pictures of Teddy Bears. Pictures of paintings of Teddy Bears. Links to other Teddy Bear sites. Quotes relating to Teddy Bears. Stories about Teddy bears. It's Teddy Bear mania, an experience sort of like sticking your head in a giant vat filled with honey. Frightening, but still somehow kinda cool. –*CC*

net rating:

Cat Fanciers
http://www.fanciers.com/

Anyone who likes cats will find a lot to mull over here.

Cats love me. Every time I come into the room, they purr and rub up against me. Of course, I hate cats. But I liked this site. Since 1993, this page has been providing ailurophiles with an exhaustive amount of information on every aspect of feline-fancying, from breed descriptions to general info (a big section with about 200 entries), plus info on shelters, veterinary medicine and tons more. If you like cats, come here; it's that simple. –*CC*

net rating:

CraftWeb Project
http://www.craftweb.com/

The ultimate arts and craft site on the Web, it's fast, filled with resources, and has a ton of stuff to see and buy. For artisans themselves, there are lots of links to resources, books, help, etc., as well as a chance (for a fee) to display your own work. If you're a craftsperson looking for a cheap way to get your wares on the Web, this is probably it. It gets about 6,000 visitors a day, which is awesome for such a specialty site. A little commercial, but overall, great. –*CC*

net rating:

FireWalking
http://heartfire.com/firewalk/homefire.html

I knew firewalking was surrounded by weird, New Age hocus-pocus, but I never

World of Coasters

http://www.rollercoaster.com/

There are two types of people in the world, those who like roller coasters, and those who don't. The latter will get a touch of dread at the mere mention of roller coasters; show them a real one and their knees go weak. The roller coaster fanatic, on the other hand, will get a wild look in the eyes at the sound of a train racing along steel tracks. A certain monomania overcomes the fanatic at the sight of tracks reaching skyward; all they want to know is: Where's the line start?

Roller coasters, with their immediate, motion-driven thrills, don't seem like a great fit on the Web. After all, what could be more dissimilar than the programmer, stationary, crunching-code and the screaming, maniacal thrill junkie riding out the spectacular drops and sharp, banking turns of a classic coaster track? World of Coasters, however, proves that the Internet is for everyone.

While the site is generally maintained by one person, various sections are edited by volunteers, demonstrating the enthusiasm for coasting online. The coaster reviews comprise a good part of the site, with entries organized by ride, park, and author. The site takes reviews from anybody who wants to relate an experience, while some are submitted by regular contributors who have been on coasters all over the U.S. But this is a big site, and most of the content has been contributed by fans.

There's also a section devoted to news, such as the construction of new and innovative coasters. Fanatics reading these items probably drool on their keyboards in anticipation of a ride's opening date. Some of the text gets a little bit technical, as when coaster manufacturers are discussed. (Apparently, "Morgan" is somewhat questionable, while "B&M" is good.) Another section, devoted to stats, details the fastest, steepest, and highest coasters in two categories, wood and steel.

The site is a great example of an active, community-driven home page, and has close ties to the newsgroup rec.roller-coaster. The design isn't great, but it fits; the logo has a certain amusement park gaudiness. Technically, however, the page is great, boasting a search engine, a survey form, and a message board. *–WKC*

net rating:

politics

Bad Subjects
http://english-www.hss.cmu.edu/bs/

Leftists reacting against aspects of the academic left gather here.

Every major university has an online journal these days, but only U.C. Berkeley has Bad Subjects. A home for self-proclaimed leftists in "reaction against some aspects of the academic left," the print publication features l-o-o-o-n-g articles and not much else, while a companion mailing list serves as a forum for action, reaction, and general malaise. Both are archived at the Web site, and the print publication can either be read online or (hooray!) downloaded as a PDF file. The site's design is minimal, yet functional; the thought-provoking text is, appropriately, the focus. *–TG*

net rating:

Center for Public Integrity
http://www.essential.org/cpi/

It's hard to examine politics without being partisan, but the Center for Public Integrity – dedicated to documenting the influences weighing on presidential candidates – does a pretty good job of it. It primarily releases findings in books and newsletters, but unlike most publishers' Web sites, the CPI's has documents available here in toto. Read about the hundreds of campaign advisors (and their hidden agendas) in the 1996 presidential race, or download a database of candidates' assets. Unfortunately, the designer's love of graphics makes for long waits, and navigation can get a bit tricky in places. *–TG*

net rating:

Congress in a Nutshell
http://ssnet.com/~bef/Nutshell.html

Environmentalists looking for legislative ammunition gather here.

"Congress in a Nutshell" – sounds like a beginner's guide, doesn't it? But don't let the innocuous name fool you: CIN is a place for serious environmentalists to gather ammunition for their legislative fights. There's almost no original material here, and the entire archive rests on one page, but that doesn't diminish its utility. With more than 100 links to relevant articles and sympathetic organizations, you could spend days wandering the environmental neighborhood. It's not the prettiest 'hood – scarce graphics and dense text may drive away all but the most dedicated activists – but it's a community nonetheless. *–TG*

net rating:

Both skeptics and enthusiasts of firewalking have a place here.

realized to what extent. If you view firewalking as the way to change the world, though, or at least redefine yourself, check it out. If you think firewalking could be kind of cool, go here. To the site's credit, it prints the skeptic's view, not just the enthusiast's. *–CC*

net rating:

R/C Pilot's Lounge
http://www.ntrnet.net/~dwright/

Radio-controlled plane fanatics can find the latest news here.

This site is well maintained, or at least it was before the Web master got married, (the site is in stasis during the honeymoon). Geared for radio-controlled plane fanatics, it has a guest book, plenty of pictures of models (some with specs), as well as a wealth of other R/C links. *–CC*

net rating:

Staceyjoy's Knitting
http://www.tiac.net/users/stacey/

Knitting patterns galore, but a folksy attitude, mark this site.

What better place to look for knitting patterns than on the Web, right? Where else could you find patterns co-mingling with quotes from *Wired*? Anyway, this good-natured, net-savvy, semi-folksy site has plenty of patterns (including one for socks and another for a chihuahua sweater), some stuff on cables, and a few words on technique. It's a fun, well-written site. The personal info is almost as exciting as the knitting stuff. *–CC*

net rating:

Contract ON America
http://www.Nashville.Net/~coa/

If you like the site you can purchase the recently published book.

Author Anne-Marie Rosato is letting the world know about the book she published in June called – her capitalization here, not mine – *Contract ON America*. Besides the fact that this book is about a year too late to be relevant, Ms. Rosato fails to inspire confidence with this site, which contains several minor HTML errors and some unspeakably bad writing. (Sample chapter title: "Packaging Political Policies or Candidates Is More Than Just A Cereal Box.") And how can a Web site be "Proudly printed with union labor and on recycled paper"? Also, no outside links. *–TG*

net rating:

EXTRA!
http://www.igc.apc.org/fair/extra/

A lack of good content mars this progressive magazine's site.

EXTRA! is the bimonthly magazine of Fairness and Accuracy In Reporting (FAIR), a progressive national media group that exposes media bias and imbalance. While the print version of *EXTRA!* is both informative and visually entertaining, EXTRA! online is a dud. The site is aesthetically dry – with gray backgrounds and cruddy graphics – and content is woefully inadequate. An unexciting table of contents for each issue, lots of not-so-titillating abstracts, and too few of the in-depth, thoroughly researched articles that *EXTRA!* is famous for (and these are back issues, no less!) all contribute to this one's failure. *–LG*

net rating:

GOP In-Fighting Updates
http://www.webcom.com/~albany/infight.html

In parliamentary systems, party solidarity is rudimentary. In the U.S., party factionalism is *de rigueur*. The GOP In-Fighting Updates began a few days after the Republican sweep of the 1994 elections, and received so much support and interest that it has become an "ongoing commentary on the GOP Civil War." It's a collection of some 100 essays, covering the volatile GOP coalition of religious extremists, social reactionaries, fiscal conservatives, and moderates. With titles like "Dissent and Dissentability" and "Rank-and-File Also Rejects GOP's Pandering to the Religious Reich," this is good grist for the mill. *–LG*

Find on-going commentary about the GOP.

net rating:

Government is Not God
http://www.govnotgod.org/

This political action committee site argues for prayer in schools.

Did you know that prayer is banned in public schools? It isn't, actually, but that erroneous belief is the basis for the "Government is Not God" political action committee led by born-again Christian William Murray, son of famed atheist leader Madalyn Murray O'Hair. Accuracy aside, the Web site is well-organized, although the writing is laced with the same propagandist flavor that taints most political cant. Buttons are unclear in some places, and there are few links to the outside world. Still, if you have $25 or more burning a hole in your pocket and want to help elect "godly men," this may be your oasis. *–TG*

net rating:

The Fourth World Documentation Project
http://www.halcyon.com/FWDP/fwdp.html

Indigenous peoples the world over are the focus here.

Q: There are about 200 states in the world. How many nations are there? A: More than 5,000, according to this site, which uses the term "Fourth World" to describe groups that have been forcibly acculturated into more-powerful governments. While the Chippewa and Aleuts may be familiar (and comparatively easy to track), the FWDP carries extensive archives on lesser-known native peoples of the world as well. There's a slight emphasis on indigenous peoples of the U.S., but you'll also find plenty on tribes in such places as Sweden and Peru. Also included is a search engine. *–TG*

net rating:

professional

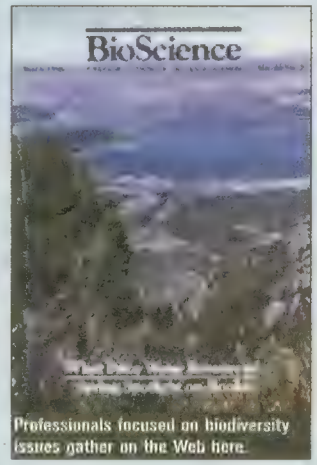
American Association of Zoo Keepers
http://aazk.ind.net/

Want to contact another zoo keeper? There's a searchable database here.

No professional zoo keeper should miss this page. It has lots of wild animal and bird GIFs (collect 'em all!), links to animal sanctuaries, as well as pointers to zoological and conservation resources. If you want to contact another zoo keeper, there's even a searchable database of professionals for browsing. When you've learned all about how to be a zoo keeper, just head on over to the Elephant Manager's Association (yes, really). *–KW*

net rating:

American Institute of Biological Sciences
http://www.reston.com/aibs/aibs.html



Professionals focused on biodiversity issues gather on the Web here.

AIBS is a membership organization of some 5,000 professionals working in the life sciences, and, as you might expect, its site covers its publications, programs, and meetings. Issues such as biodiversity, biological research, medicine, agriculture, and the environment are all within the purview of *BioSciences*, the AIBS journal. The publication provides a few sample articles, and tables of contents from the most recent issues. With links to the "member societies" of AIBS, such as the Poultry Science Association, this is a good start for anyone interested in the field of biology. *–KW*

net rating:

American Journalism Review
http://virtumall.com/newsstand/AJR/main.html

Since 1977, AJR has reported on media trends and news coverage. The online version is partly an enticement to subscribe, with glimpses of tables of contents and back issues. The AJR Web Resource Guide offers a substantial set of links to journalism schools, First Amendment sites, all kinds of publications, networks, and broadcast stations on the Web, as well as to media watchdog sites. Worth a look for those in the business. *–KW*

net.rating:

Design Sphere Online
http://www.dsphere.net/

Designers can find HTML tutorials, classifieds, and tips here.

The Design Sphere is a good resource for those working in communications or the graphic arts. There's a glossary, HTML and Web page design tutorials, a business-to-business directory, and the now-obligatory resume and want ad postings. Less successfully done are the Community and Way Hot areas, which don't offer many contacts or enough information. A design firm/Web site is showcased monthly, and you can see the portfolios of numerous firms and consultants here. There are useful links to tips for QuarkXPress, and the like. *–KW*

net rating:

Footwear Industries of America
http://www.fia.org/

Footwear: We gotta have it! The FIA page touts its services to members ranging from small, family-owned operations to large-scale manufacturing conglomerates – these are the people who make your shoes. FIA is an established trade organization, with certain public policy interests and lobbying efforts that you can look into here. There's an industry resource directory, called Solesource, and information pertaining to importing and exporting. If you're in shoe biz already, or just interested in a what a pervasive industry offers to its professionals,

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	A visual 10!	Rocket science material
Fair amount of content	Appealing	Smart
Needs more juice	A dog	Needs a brain

ankle over to the FIA page. –*KW*

net rating:

Law Journal Extra!
http://www.ljextra.com/nlj/

Using the magazine model for organizing info, LJE, published by the *National Law Journal*, is an excellent bookmark for legal professionals. Its Table of Contents is really a meta-page of links to legal business development resources, legal technology tools, firm management, legal classifieds, pertinent newsgroups, and more. Even better, LJE seems to be regularly maintained and updated. It also provides extensive links to decisions and court rulings, relevant government documents, and the EDGAR and THOMAS databases, as well as as a humor page called "Non-Billable Hours." This is one of the best sites for lawyers out there. –*KW*

net rating:

Medicine Online
http://www.meds.com/mol/welcome.html

Medicine Online could be the start of something useful. It's a commercial resource that offers medical articles and links for both professionals and consumers. Since the site's launch in May 1995, the available files – articles, FAQs, and links to relevant newsgroups – have focused on cancer (albeit only certain forms of the disease), but the makers claim that they'll soon include similar resources on other diseases, as well as how-to's on treating depression and headaches, pain management, and infant care. There's also a link to the National Library of Medicine's searchable database. –*KW*

net rating:

Medstuff
http://www.opennet.com/medstuff/

Beware the site that promises personal services but reveals neither the locations nor the names of the people who are to provide them. Beware Medstuff, in particular, allegedly founded by doctors and lawyers for the public out of indignation over of the enormous amount of misinformation given to patients. But looking through the few pages here yields only some text that's meant to encourage us to reveal our medical problems or medical/legal problems. All via e-mail. Surely, there are online medical referrals that are useful. This just isn't one of them, not by a long shot. –*KW*

net rating:

Nolo Press Self-Help Law Center
http://gnn.com/gnn/bus/nolo/index.html

God bless the folks at Nolo, an organization devoted to providing legal info on the cheap. A straightforward site with FAQs that are pointed and informative, it allows you to zoom in on your problem via the index, and if the information there doesn't cover all the bases, you can order the book on the subject (printable order forms are available online). While NOLO is in the publishing business, there's still *beaucoup* info here for free, as well as some pointers to books and products from other publishers. It's an enlightened approach to business. May their tribe increase. –*PJ*

net rating:

Psychlink Professional
http://www.psychlink.com

For those who perform "behavioral health care," including psychology, psychiatry, and neuroscience, Psychlink has some useful aspects. The site provides links to a good number of medical journals and publications, and a wide variety of related professional associations. The conferences and news links are less useful: No contact info for any of the upcoming meetings, and the news is just compiled from newsletters, without dates. Instead, check out the Articles, Organizations and Resources pages: Those are the high points of Psychlink. –*KW*

net rating:

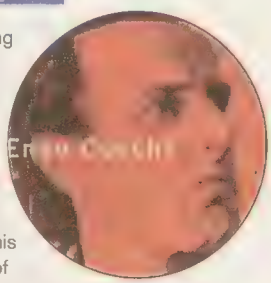
The Air Crew Home Page
http://vanbc.wimsey.com/~gordona/aircrew.html

The wild blue yonder calling? For flying professionals as well as enthusiasts, here's a meta-page of links to aviation, aerospace, weather, and travel pages, as well as a few newsgroups and a flight attendants' site. You can head out from here to NASA, the FAA, and other aviation sites. These folks don't just bring you the fun stuff, either – you can get to the Aviation Accident Summary page from here, or the High Altitude Radiation Measurement Study. –*KW*

net rating:

Totem

http://www.totemweb.com/



Architects enthralled by Italian design will find much at this eye-catcher of a site. It makes good use of the latest in new media, while at the same time keeping its design clean and simple. The table of contents is laid out on a colorful checkerboard image-map, with Shockwave elements built in. News headlines and alternating images flash on and off in the squares. Be prepared to wait for the show, however; on any connection slower than a 28.8, the table will drip down your screen like cold honey. Still, the wait is worth it.

The calendar is laid out in horizontal Frames, so that you can browse the competition timeline, say, then tabulate over to the events schedule with a click on the menu. No changing screens; the navigation is built into one page. This feature saves time while expertly managing the information. At this writing, interviews with other architects are the mainstay of the original material you'll find here. Downloadable audio files allow visitors to listen to them at their leisure.

Two features that will be operational by press time should be of special interest to architects and designers. The Forum will be a platform for discussing ideas online, and the Archive will store back issues. Note, however, that "a nominal fee will be charged for contributions retrieved from the Archive."

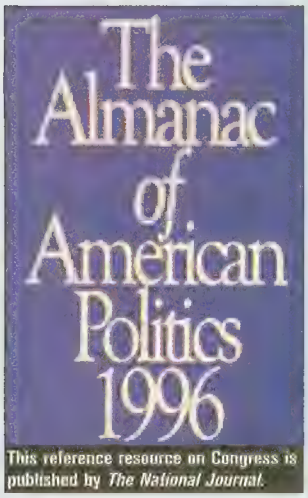
I have to wonder, though, if anyone will want to retrieve anything from this resource? The downside of Totem is content. The reviews are too short, and the writing is in sore need of editing (preferably by someone proficient in English, but for whom "archi-talk" is Greek). The editorial in this premiere issue reads like a manifesto for clarity, but is itself mired in words like "homologation" and a general morass of excess verbiage. Architects will probably take issue with the slur on their lingo, in which case they may find a home here. That's not so bad. Totem has a good foundation and the potential to be a master work. –*PJ*

net rating:

reference

Almanac of American Politics

http://politicsusa.com/PoliticsUSA/resources/almanac/



This reference resource on Congress is published by *The National Journal*.

Want to find out more about your local representative? This is a great place to start. *The Almanac of American Politics* is a doorstop-sized book in print – huge, and costing upwards of $50. It's also one of the most complete references on congressional politics around. The good news is that the entire book is on this Web site, well-organized by subject, state, and name. Be aware that a conservative bias (it's published by *The National Journal*) colors the writing. It's not offensive, however, and how often can you say that in politics? *–TG*

net rating:

American Demographics

http://www.marketingtools.com/

Marketing professionals will find a useful resource of info here.

Some magazines transition to the Web successfully, enhancing their print product with online exclusives, clever presentations, and useful cross-references. Then there are those like *American Demographics*. It's not bad; certainly, it's a useful site for those in the marketing field. The text of the entire print edition appears, as does the text of Dow Jones' companion magazines. Still, the data file "exclusives" are meager, and the link list includes a mere eight sources. The articles, however, are well-written and will have you singing *AD*'s praises. *–TG*

net rating:

ClassMate

http://www.classmates.com/cgi-bin/cgiwrap/cmates/cmates.cgi

My high school years sucked; nevertheless, I keep an eye out for old classmates as I approach the tenth anniversary of my liberation. And where better to seek them out than on the net? The folks at ClassMate realize this, and they've set up a registry to help people like me find old comrades. Unfortunately, the system needs to reach critical mass for it to work for me, and it hasn't yet. When I visited, only nine people from my school had registered, and none from my class. "Membership" privileges are $15, but registering is free. So go on – sign up! Maybe your high school crush has been looking for you. *–TG*

net rating:

Clearinghouse

http://www.lib.umich.edu/chhome.html

The idea is good: If omnibus search engines like Lycos and WebCrawler sometimes return links to substandard and irrelevant sites – as they often do – why not create a database that includes only Web pages meeting certain standards? That's the idea behind the Clearinghouse, located at the University of Michigan. Ostensibly, all of its 1,078 sites have been reviewed for relevance in the past 12 months, and either approved or denied entry. In reality, though, most of the pages I searched had no ratings; the linked sites were of uneven quality; and 1,000-odd sites seems far too few to make a useful general directory. *–TG*

net rating:

Cult of Macintosh ™

Find an extensive resource of information about the Mac here.

http://cult-of-mac.utu.fi/

Tired of apologizing for being a priest(ess) in the minority Mac sect? Celebrate your beliefs with similarly afflicted souls at the Cult of Macintosh. Like many churches, the focus here is on good works, and that means tons of Mac-related links to set you on the path to righteousness. Links are separated into 19 categories, and salted with salient commentary and clarifying notes. Search for shareware, read technical notes, find noted Mac industry figures… This is the most complete Mac special-interest site I've ever seen. It is, however, slow, so connect to one of its many "mirror" sites in your area. *–TG*

net rating:

Currency Converter

http://www.olsen.ch/cgi-bin/exmenu

It's no surprise that this site is run by a company in Zurich, Switzerland: That city is famous 'round the globe for banking. And what's more important for international bankers than currency exchange? Nothin', that's what. The folks at Olsen and Associates have done a bang-up job with this form-based currency converter. It gives the exchange rate for 100 currencies and precious metals from as far back as 1990. However, it only does one conversion at a time: To compare many currencies at a glance, visit the GUN/Koalas Currency Converter at **http://bin.gun.com/cgi-bin/gun/currency**. *–TG*

net rating:

Elements of Style

http://www.columbia.edu/acis/bartleby/strunk/

The Elements of Style, written by William Strunk, Jr. way back in 1918, remains a popular handbook for writers. Now it's been transcribed, proofread, and marked-up in HTML by Columbia University's Project Bartleby, which shares the same goal of digitizing classic texts as Project Gutenberg (**http://jug.coo.uiuc.edu/PUG/welcome.html**). Tables, hyperlinks, and simple design make this a handy site to visit as you're banging out your homework or composing that big memo. *–TG*

net rating:

Office of Population Research

http://opr.princeton.edu/

Every three seconds, somewhere in the world, a woman gives birth. We must find this woman and *stop her*! All right, that's an old joke… But it's a good one with which to introduce the study of worldwide birth and death statistics. Princeton University claims to have the oldest population research department in the world, and now it's claimed primacy online as well. While I don't doubt that its site is comprehensive, its content is far too academic for most of us. *–TG*

net rating:

PAL Map Collection

http://rowan.lib.utexas.edu/Libs/PCL/Map_collection/Map_collection.html

There are 230,000 maps in the Perry-Castañeda Library Map Collection, but don't count on finding your hometown here. Housed at the University of Texas at Austin, this collection is among the most extensive such archives in the world. Unfortunately, its Web site has only a fraction of the library's total content, and the map images are often too hazy to let you read place names. It's a valuable resource, nonetheless, with approximately 1,000 maps to its credit. *–TG*

net rating:

The Genealogy Home Page

http://ftp.cac.psu.edu/~saw/genealogy.html

A variety of methods for unearthing family history are housed here.

The natural first response to this page is: "There's too much stuff here. My head's gonna explode!" But if you've ever tried constructing a genealogical chart on your own, you'll recognize it as a great help for a difficult task. There's not much original material here, just hundreds of links in 13 categories, each one involving a different method for unearthing your family's past. It was more than enough to get me going: I was able to find an address for someone researching my "untraceable" family. Maybe you will, too. *–TG*

net rating:

religion

Augustine

http://ccat.sas.upenn.edu/jod/augustine.html

Augustine's belief system is delineated here, in both Latin and English.

In both Latin and English, this site gives insight into the life of St. Augustine, who, in about 400 A.D., wrote one of the earliest guides to Christian living and beliefs. Augustine, the saint, is credited with describing God in terms of the Holy Trinity. Augustine, the Web site, includes a biography, English and Latin versions of Augustine's belief system, and ancient artwork depicting the early church lawmaker at work. *–DR*

net rating:

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	A visual 10!	Rocket science material
Fair amount of content	Appealing	Smart
Needs more juice	A dog	Needs a brain

Buddhist Studies
http://coombs.anu.edu.au/WWWVL-Buddhism.html
Here's a dull-looking site that just happens to have more than 150 links to some really visually appealing sites about Guatama Buddha, Buddhism, and Asian studies. The links are not necessarily listed in a cohesive fashion, but it's a great resource for those with patience. *–DR*

net rating:

Campus Crusade for Christ
http://www.mdalink.com/CCC/index.html
Home to Christian ministries throughout the world, the Campus Crusade for Christ boasts a Web site that can be viewed with or without Shockwave enhancement. The site also includes a search engine, links to other CCC sites, and a summary of the ministry's perspective on the life of Jesus. It even includes HTML coding that allows you to add the group's logo to your own home page as a hot link. *–DR*

net rating:

Information about Zoroastrianism
http://palette.ecn.purdue.edu/~bulsara/ZOROASTRIAN/zoroastrian.html

The ancient Persian prophet Zarathushtra continues to inspire.

There are more than a million followers of the ancient Persian prophet Zarathushtra, known to the Greeks as Zoroaster. The Web site chronicles the history of the prophet – Ahura Mazda or "Wise Lord" – and the faith. It also includes photos and essays concerning the problems facing modern-day Zoroastrians. *–DR*

net rating:

Project Genesis
http://www.torah.org/
This Web site attempts to engage all Jews, Orthodox and non-religious ones alike, in a dialogue on scholarship and news pertaining to the Jewish faith. An attractive Web site relying on an outerspace motif, Project Genesis offers classes on the Torah, ethics, and Halacha, or Jewish law. There are also hyperlinks to other Jewish Web sites, and information about Jewish speakers, seminars, events, and educational programs throughout the U.S. and Israel. *–DR*

net rating:

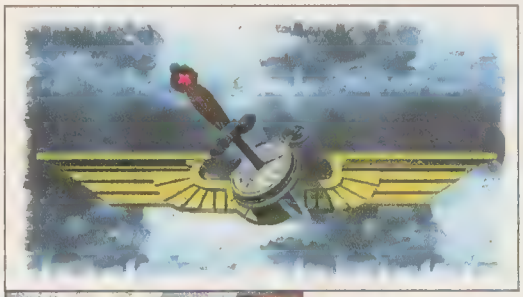
SubSITE

http://sunsite.unc.edu/subgenius/

This is the only religious site I've seen that fully embraces the medium of the Web, with animations of looming heads, lightning-struck brains, and mushroom clouds. Not your old-time religion, by any means, but good enough for me.

O.K., but seriously, the folks behind this site may be taking a once-great gag too far. Don't get me wrong: It's fun, and funny, and all that – but somebody out there's actually pushing this stuff, proselytizing as if it were for real! As if it wasn't all just an outrageous hoax! As if they've started to believe their own lies!

Huh, you say? Who are they? What in God's name am I talking about?



The Church of the Subgenius is what! The Campus Crusade for Bob! The Campaign for World Wide Slack! The whole weird movement of dangerous freaks who, apparently, don't know when to let a joke go! Still in the dark? Go see for yourself (God knows, I can't explain it).

Take a drive into the mind of Bob Dobbs. Learn all about the fictitious former salesman turned deified, disembodied head. Discover for yourself the hypnotic thrall of the slack ethic. Bombard yourself with strange, twisted images that have no apparent connection to anything. Visit the "Things to Want and Buy" catalog for the latest in DobbsWear and Slack Threads. Send checks, if you must, to the First Stangian Orthodox MegaFisTemple Lodge of the Wrath of Dobbs Yeti, Resurrected. Do whatever you want... Just don't go to any Devivals fer chris-sake, or, if you do, don't tell me about it. I don't want anything to do with it. This site – great as it is – is as far as I go.

And don't send me any flames denouncing this as an insult to the Religion category. The way I see it, it's no more commercial, no more profane, than the 700 Club. But it's loads more fun. Send your flames to Bob. *–PJ*

net rating:

The Abayudaya Jews of Uganda
http://www.intac.com/PubService/uganda/
Perhaps you've studied Ethiopian Jews or heard about the Cochin Jews of India, but have you heard about the Abayudaya Jews of Mbale, Uganda? Well, until 1992, this Web site's manager, Matt Meyer, hadn't, either. But after visiting Kenya and meeting a Ugandan Jew, Meyer went to Mbale. He was so inspired he's now chronicling Ugandan Jewish history, and requesting donations to buy them a Torah. The site also includes excerpts from Meyer's journal and photos of the Abayudaya. *–DR*

net rating:

The Holy See
http://www.vatican.va/
Get the latest from Pope John Paul II here. Most of the information is available in English, Spanish, German, French, Italian, and Portuguese. You'll gain access to the Holy See Press Office, find Catholic doctrine, and be able to post messages to priests. *–DR*

Photos of the pontiff adorn the official Holy See site.

net rating:

The Rapture Index
http://www.novia.net/~todd/
Todd Strandberg analyzes Biblical prophecy as manifest in the latest news, such as the Ebola virus arriving in Texas and volcanic activity in the Caribbean, while keeping tabs on modern-day antichrists like John F. Kennedy, Ronald Reagan, Louis Farrakhan, Bill Gates, and Barney the Dinosaur. An interesting site that weaves news and Apocalyptic assertions with wit and sarcasm. *–DR*

net rating:

USC Muslim Students Association Islamic Server
http://www.usc.edu/dept/MSA/
Everything one could ever want to know about Islam is at this Web site, including access to an English translation of the Koran and a beginner's guide to understanding Muhammad, pillars of the faith, and Allah. The site, created by a campus organization that can be found throughout the U.S., gives an Islamic perspective on the differences and similarities between Islam and other faiths. MSA criticizes many other groups' claims to follow Islam. *–DR*

net rating:

science

Chaos Network
http://www.prairienet.org/business/ptech/

Despite the promise of a fractal-adorned home page, this needs work.

I'm a big fan of chaos theory, an examination of the complex order in seemingly-random systems. I also find fractals, the visual representation of chaos math, quite beautiful. So, needless to say, I was jazzed to join the Chaos Network with its cyberdelic name and fractal-adorned home page. But, alas, each click of my mouse was met with the dreaded "404 Not Found" message. Perhaps the real message here is that we don't need to join the Chaos Network because, after all, we're already members. But probably not. Get busy, Webmaster. *–DP*

net rating:

Cold Fusion Times
http://world.std.com/~mica/cft.html

Believe it or not. Ever the skeptic, I chose the latter, but I'm still interested in exploring the fringes of scientific thought. And it's hard to argue with the site's main assertion: "Cold Fusion is important because even if there is only 1/10 of 1 percent possibility of its reality, given its low expense and ubiquity,... its safety... and its impact..., it must be investigated." For those with the time, this cleanly designed journal is the place to begin your investigation into research papers, conference proceedings, and a development timeline. *–DP*

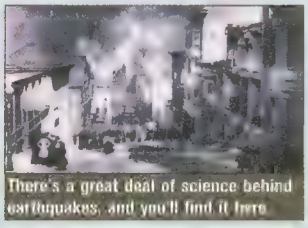
net rating:

Cumulative Units of Binary Excellence
http://www.voicenet.com/~enrich/

One quark, two quark, red quark, blue quark... CUBE is a list of links to sites dealing with the trippiest subjects in physics – Quantum Mechanics, Particle Physics, and "the subatomic realm." With only five or so annotated links per section, this site is not comprehensive by any means, but it does guide you toward places to find information about hypermatter, Schrodinger's Cat, and other *relatively* interesting things. Ever wonder why that one quark is so "strange?" CUBE can point you in the right direction. *–DP*

net rating:

Earthquake Info from the U.S.G.S
http://quake.wr.usgs.gov/


There's a great deal of science behind earthquakes, and you'll find it here.

Living in the San Francisco Bay Area, I'm well aware that it's not a matter of *if* the Big One comes, but *when* it comes. This site is "Earthquake Central," with up-to-the-minute information on tremors around the world, tips on how to prepare for quakes, and clear explanations of the science behind (or shall we say under) earthquakes. Besides the facts, some fine infotainment is at your fingertips, too. Worth a quick read, for example, is the "Late Night Musings of an Earthquake Seismologist." Next time I feel a shaking under my shoes, I'm going to "duck, cover, and hold," then wait patiently for this page to load. *–DP*

net rating:

Evolution and Behavior
http://ccp.uchicago.edu/~jyin/evolution.html

The opening paragraph of this page serves as a great teaser, describing this graduate student's study of "the evolution of animal social behavior, ethology, and behavioral ecology." Unfortunately, he's either too embroiled in his books, or just isn't far enough along in his studies yet to have any original content on the site. All that's offered is a set of links to documents on evolution. They are really good links for evolution buffs, though, and there is some value in that. *–WKC*

net rating:

Fermi National Accelerator Laboratory
http://www.fnal.gov/fermilab_home.html

Fermilab is home to the Tevatron, the most hardcore particle accelerator in the world. In fact, Fermilab is where the Top Quark was discovered last year. (Score one for Big Science!) No need to worry if you missed that news in high-energy physics. Click here for a clear and interesting explanation of what the hell atom smashing is all about, why you should care, and what's next on the particle physics horizon. A graphically bland but scientifically profound site. *–DP*

Find out about the Top Quark, and other ones, too, at Fermilab's site.

net rating:

Fluids Movie Archive
http://www.swcp.com/itsc/movies/

One of the best things about the Web, the reason that it's more fun than e-mail or chatting or Usenet, is its multimedia content. But movies can be more than just fun, as this collection of MPEG clips proves. The movies located on this page are all examples of fluid dynamics: color-enhanced movies showing things like a plate being pushed through water. The clip shows how the fluid is pushed around either side, causing it to swirl in behind the plate. The information is somewhat limited here, but remember: A picture is worth a thousand words. *–WKC*

net rating:

Global Change Data Center
http://ame.gsfc.nasa.gov/gcdc/gcdc.html

The GCDC's goal is to provide data about global environmental changes.

This site provides background on the Global Change Data Center, an ongoing NASA project to develop archival and distribution systems for all the fancy figures gleaned from high-tech Earth observation systems both on the ground and in orbit. Gigabytes of information fly in daily about global environmental changes, and the ultimate product of the GCDC will be "access to (this) data." Without proper organization or access systems, this important information about the planet's health remains a bunch of ones and zeros, all downloaded with nowhere to go. Pretty soon, we could be in the same boat. *–DP*

net rating:

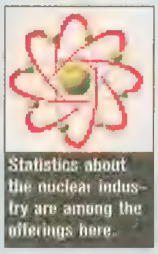
Shorebird Migration
http://www.utm.edu/~phertzel/migration.htm

The movement of birds of all sorts are tracked and recorded here.

Another example of how the Web can provide an open database that anyone can use, the Shorebird Migration page unites and informs birders interested in Plovers, Sandpipers, Tattlers, and more. The site maintainers get bird sightings from a variety of sources, and diagram them on a U.S. map. The home page isn't beautiful, so don't go here if you are allergic to the standard gray browser background, but the maps are nice. *–WKC*

net rating:

Uranium Information Centre
http://www.uic.com.au/


Statistics about the nuclear industry are among the offerings here.

This Australian-based site is filled with information on the uranium industry. While some information relates to other countries, the majority is about nuclear energy and uranium mining in Australia. While the tone of the site isn't lunatic, it is definitely pro-nuclear energy, with sections entitled, "The Peaceful Atom" and such. An extremely content-rich site, UIC's newsletter is archived here, along with important briefing papers on nuclear issues. Some of the more interesting items are statistics on energy output from nuclear sources. *–WKC*

net rating:

shopping

Designers Direct
http://www.designersdirect.com/

You have to go to a lot of trouble to get a Calvin Klein t-shirt here.

Shopping becomes a chore at this site, which sends you through page after page just to see what's available (casual clothing), get descriptions of specific items (there are only eight), and go to additional photos of said items (the top-level illustrations are truly thumbnail-sized). Hoo, boy. If you want to go to all this trouble for a Calvin Klein t-shirt or a $98 bomber jacket, be my guest. The site does offer multiple ways of paying, including an 800-number, so you might find an actual human to answer your questions. In terms of browsing, though, Designers Direct makes you work hard for a questionable reward. *–KW*

net rating:

E-shop
http://e-shop.com/

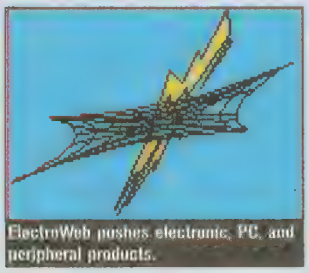
This might be the closest approximation of the Home Shopping Network on the Web. Although not offering as vast an array of goods yet (hardly), it has exactly the same sort of wildly diverse, tawdry, no-class merchandise as the TV people do. My favorites: The Hand's Free Sports Ball Carrier and the Long Mu Mu (@

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

$16.95, a must for the lady of the house). Most of the departments are, as yet, still empty, but who knows? TV shopping was a huge hit. Maybe, God help us, this will be too. –*PJ*

net rating:

ElectroWeb
http://ElectroWeb.com/



ElectroWeb pushes electronic, PC, and peripheral products.

If anyone tries to tell you that shopping on the Web is fun, easy, intuitive, and beats facing the mallgoers, don't believe 'em – this site's proof. To shop here, you gotta plow your way through numbing market-speak lists of the various electronic, PC, and peripheral products. ElectroWeb pushes, most of it in shorthand (64kb/s Data, 64kb/s Digital Voice, Max-X Bass), and sportin' fuzzy product shots. It pays to know exactly which model or title you want before browsing, and woe to the shopper whose taste ranges beyond the meager inventory offered here. If this were all there was to the Web, we would have moved on to the next fad by now. –*KW*

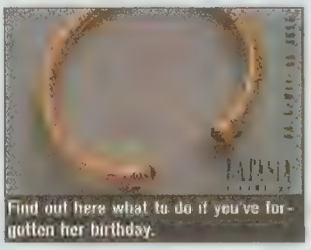
net rating:

Ken Crane's Laser Disc Super Store
http://www.kencranes.com/laserdiscs/

Laser discs are well-suited to Web shopping: You can search by genre, title, or format (letterbox sometimes available), and you can order jackets or sleeves for the discs you have, and for those laserdisc fans who don't have access to a large selection locally, Ken's is a good resource. Besides the usual genres, he offers specialties including X-rated, exercise, Star Trek, karaoke, TV classics, and Voyager Criterion titles. Afficionados will know how his prices stack up, but given the wide selection and choice of delivery speeds (regular, fast, and I've-gotta-have-it-tomorrow), chances are this is one to bookmark. –*KW*

net rating:

Latasia and Co.
http://www.redshift.com/%7Elatasia/

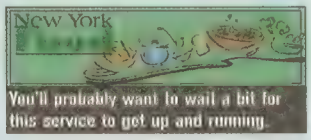


Find out here what to do if you've forgotten her birthday.

Oh, this one is precious. See, at Latasia, they "think shopping should be fun, convenient, and exciting!" That's why they include "lots of information" (The Latasia Story), accessory tips ("nifty things you need to know"), and gift suggestions ("Aarh! Her birthday is this week, what do I do?" I'll tell you what you do, nimrod: Do her a favor and skip town). But wait... There's more: Latasia is also an exciting opportunity to earn money at home. Oooooii. I'd give this one a wide berth. –*PJ*

net rating:

New York Food
http://www.nyfood.com/



You'll probably want to wait a bit for this service to get up and running.

Got a yen for pizza, bagels, chow mein, or pasta delivered to your door? If you live in Manhattan, you might have luck with New York Food. At this writing, the selection of restaurants is predictably heavy in the deli department, but downright skimpy in cuisines like Indian, Thai, or Japanese. The criteria for cost and geographical boundaries are still very vague, but that's O.K. because other features of the service – an area for posting your own reviews and reading others', for example – are limited to New York customers of Internet provider Pipeline. The foundation is here for a nice service; New Yorkers, check back next year. –*KW*

net rating:

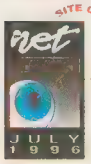
Nine Lives Clothing Consignment Store
http://www.los-gatos.ca.us/nine.html

Submit a profile of clothing desires and you could find shopping nirvana.

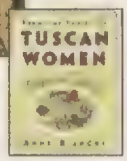
Nine Lives is a consignment store carrying "pre-owned" women's and men's clothing in Los Gatos, CA. And now it has a Web service. Here's how it works: You customize a shopper's profile, send it in, and one of the store's personal assistants will go off in search of clothes or shoes from the store that fit the description of what you like. You'll then receive back a text-only list of items detailing color, size, and fabric, and price. Like what you read (but

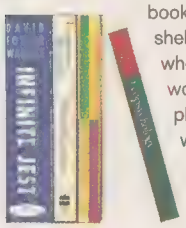
Amazon.com! Books

http://www.amazon.com/



Claiming to be "Earth's biggest bookstore," and offering more than a million titles, this site could not possibly be anything but a Site of the Month. Think of it: one million books! So much knowledge, so much reading. Of course, whether "biggest" is necessarily best is up for debate. Also, if the term "bookstore" implies a physical space, does Amazon.com even qualify as a bookstore in the usual sense? Perhaps not, but, then again, nothing on the Internet is business as usual. The sense you get when you search the Amazon.com Web site and find so many books that match your interests is of a super-vast warehouse with miles of book-laden shelves. The whole thing would be completely overwhelming if not for something as fundamental as a search engine.





The core of Amazon.com, finally, is the search engine, which allows four different ways of looking for a particular book. The easiest interface allows the user to search by title, author, and/or subject. The simplest, but least effective, method is by keyword, such as a word in the title, or something to do with the subject matter. There is also a search form that surveys all the keywords available, and a page with an open field for entering queries in Amazon.com's search language.

For general browsing, hyperlinks lead to books classified by awards, bestsellers, and Amazon.com staff picks. The awards section covers some pretty broad territory, from Hugo Award to Pulitzer Prize winners. This section is useful if the reader is looking for a critically acclaimed book, or just trying to answer a trivia question. The bestseller lists has both national listings and one specific to Amazon.com (which, by the by, could provide interesting market research data about what sort of people are actually engaging in Internet commerce; that is, if you can judge a person by the books they read).

In the democratic tradition of the Internet, there is a section for individuals to write in their own reviews of the books Amazon.com has to offer. All purchases can be made online, and each book's entry gives a timetable for delivery. –*WKC*

net rating:

can't see)? Then call the store to put a 24-hour-hold on the merchandise. Of course, you have to actually go to Los Gatos to buy it. I suggest the site invest some money in making shipping available to make this truly worthwhile –*KW*

net rating:

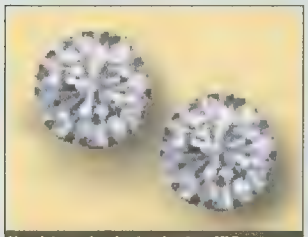
Righteous Rags
http://www.onto.com/righteousrags/

Anyone wanting to espouse a virtuous attitude should go here.

Dead fish swim with the stream. A big head is a big load. Get a grip. These are slogans you too can buy and wear, courtesy of Righteous Rags. The site offers a simple product line (t-shirts, mock turtlenecks, sweatshirts, and caps) that promote "virtuous attitudes" such as integrity, honesty, and hard work in larger-than-life display type. It's easy to find what you're looking for; the product sketches are appealing; and you can send e-mail with your comments and questions. When I visited, there was only one problem: The order page was under construction. Delayed gratification, anyone? –*KW*

net rating:

World Wide Diamond Source
http://plaza.interport.net/wwd/


Need to get a last-minute gift? Diamond lovers will be satisfied here.

Call me skeptical, but diamonds don't strike me as something folks are jumping to buy on the net. But if you're feeling compelled, you can do it here (at least, you can e-mail an order to be verified within 24 hours of providing a credit card number). Whether you want cut diamonds, engagement rings, studs, or tennis bracelets, there is a long list of item numbers and prices to choose from. If, on the other hand, you'd like to learn a little more about the gems before you start shopping, this is a helpful place to begin. There's a short FAQ and info on the cut, color, clarity, and carat-weight – the four Cs of diamondology. –*KW*

net rating:

sports

Archery
http://www.stud.his.no/~morten-b/archery.html

If it's good enough for Robin Hood, it's good enough to have a Web page. Archery has become a modern sport with the latest in high-tech bows and custom-made arrows, but it's been around since before written history. This site might as well have been designed back then, too. The only saving grace of this page is the content, which includes a brief history of archery and a detailed section on equipment. Otherwise, it should put an apple on its head and hope for a miss. –*BJB*

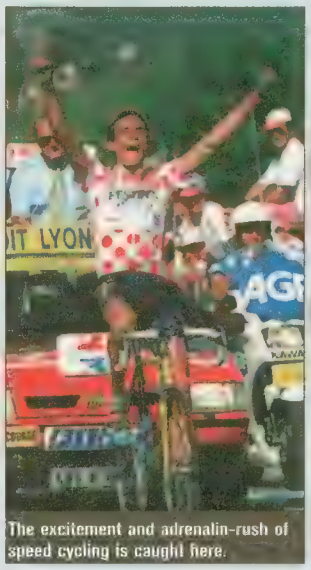
net rating:

Internet Squash Federation
http://www.ncl.ac.uk/~npb/

While some of us would rather eat it, others have reclaimed the word and made it into a sport. The Internet Squash Federation has all the links a squasher could want – clubs, training, companies, history, newsgroups, newsletters, player profiles, rules, tournaments, TV coverage, and much more. Confusion rules the humor section, while the spending urge marks the mail order page. Who knows if Squash will be the next big sport of the future, but with a site like this, it's off to a good start. –*BJB*

net rating:

King of the Mountain Cycling Road Climbs
http://funnelweb.utcc.utk.edu/~wlculp/king.html

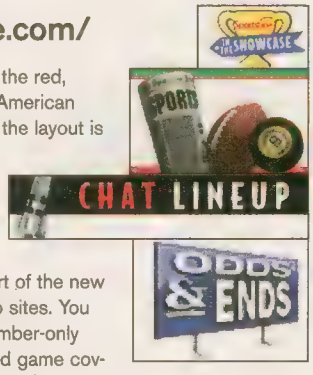

The excitement and adrenalin-rush of speed cycling is caught here.

Remember playing King of the Mountain, where kids raced up a hill and whoever could push as many kids off while staying

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

SportsLine USA

http://www.sportsline.com/



SITE OF THE MONTH net JULY 1996

This site is all about the red, white, and blue of American sports – quite literally, the layout is almost exclusively fashioned after the U.S. flag. It's got your baseball, football, hockey, and golf (as well as soccer, tennis, and thorough Olympic coverage). SportsLine is part of the new paradigm of subscription-based Web sites. You pay $4.95 a month for exclusive, member-only content – daily features, columns, and game coverage (newscaster style), or a one-time, $39.95 for an annual "box seat" subscription. While I'm wary of any site that charges for access, SportsLine also has a significant amount of free content to offer, such as news, updated (to-the-minute) scores,, and live chats with the players. April's line-up held chats with Joe Namath, Kevin Greene, and Michael Lewis, to name a few.

You can run for miles through the member-only content which, for sports fans, is worth the $4.95. Besides what's already been mentioned, SportsLine offers daily sports feeds from the Associated Press wire, links to contact sports heroes, and an audio arena, updated every morning at 8 a.m. The audio section is exceptionally cool because it offers the files in RealAudio, .wav, and Streamworks formats. There are no strategic alliances to force you to use one or the other. Members also get to play fantasy sports games, like chat-based MUDs and MOOs – be the pitcher on your favorite team, or score the home run of a lifetime. The fantasy section is actually quite popular, and hosts a well-established community of players. That alone could be worth the monthly fee.

Technically, the site is running about par with the rest of the corporate lineup. There is some nice use of Forms and Tables; the CGI scripts are exceptionally fast; the chat is supported via Netscape's new chat client; and the transactions in the mall and registration are handled on Netscape secure servers. The baseball diamond animated GIF is kind of nifty, too. Overall, SportsLine gets a high five, and is well-worth a regular spot on your bookmark list, with or without the membership. –*BG*

net rating:

on top won? Add bikes, make that hill into a mountain, and you've got this sport. Search for a difficult mountain bike climbing route in Tennessee, or look up Mt. Evans in Colorado, the highest paved road climb in North America. Each of the mountain bike climbs has ratings, locations, ride, and race information. However, there were still more "working on it" GIFs than actual goods when I visited. *–BJB*

net rating:

Running Room
http://www.runningroom.com/

This running shoes and clothing store operates a good resource online.

Run, Forrest, run! Running Room is a store that sells running shoes and clothes, but online, it acts more like a sporting resource. Look up races in Vancouver, Calgary, Winnipeg, London, and other regions. Access information on national races, such as The Boston Marathon and the Olympic Day Run. Check out the clinic programs, which detail store-sponsored workshops that teach you to avoid injury and to run faster. There's also a woman-only program. Unfortunately, the site needs more informative articles and a personality before it's worth running to. *–BJB*

net rating:

Scuba World
http://www.scubaworld.com/

This mega-resource for divers will give them the depth of info they need.

This site makes other water sports pages look like fish bait. Design and desire for knowledge (sub)merge to give divers the depth of information they deserve. Check out the directories of scuba equipment manufacturers and scuba instructors. Search for a career in diving, or follow links to see the latest weather forecast. Scuba World offers descriptions for 30 diving magazines, and additional links to more underwater resources. *–BJB*

net rating:

Skate.Net
http://www.crocker.com/~webtrax/skate/

Before you can master a major half pipe, you need a kickin' skateboard. Skate.Net helps find you one by reviewing skateboard decks, trucks, and wheels by Alien Workshop, Planet Earth, Venture, Toy Machine, and others. Go to the clothing section for reviews on products from Airwalk, DC, Etnies, and Vans. Most of the reviews have photos of the stuff, so you know why it's dissed or desired. Read interviews with pro skaters Jeff Taylor, Felix Arguelles, and Richard Angelides. Look at photos galore from the Warped Tour. *–BJB*

net rating:

SWIMnews Online
http://www.swimnews.com/

Sites either sink or swim on the Web, but this one manages to stay afloat. SWIMnews Online features news and swimmer profiles in its magazine. Look up rankings and records, as well as the meet results of your favorite human fish. Search the photo gallery for specific professional swimmers or sports photographers. This Canadian swim site has a purpose even if it does lack a personality. *–BJB*

net rating:

The Bocce Site
http://www.ultranet.com/~jfrat/bocce.htm

The culture behind this "bowling" game is not apparent here.

Bocce isn't just about rolling some balls on the ground, it's an entire culture. Read the rules to the "bowling" game, or go a step further and try reading a book about the European game. This very small directory has links to tournament news and league standings, as well as the computer game, Virtual Bocce. Without much original content, the Bocce Site still loses sight of its target. *–BJB*

net rating:

USA Gymnastics Online
http://www.usa-gymnastics.org/usag/

They'll tumble for ya at USA Gymnastics Online. Find out about upcoming and past events, such as the 1996 USA Gymnastics Congress and the USA Rhythmic Gymnastics Junior Olympic Championships. Search the list of biographies of famous USA gymnasts and Olympic medalists. Read selected articles from the sporting magazines *Technique* and *USA Gymnastics*. Learn about the history of artistic and rhythmic gymnastics. USA Gymnastics Online balances style and expertise perfectly. *–BJB*

net rating:

Weightlifting
http://www.waf.com/weights/index.html

Step up to the platform and lift a ton of techniques for weightlifting. Read the rules for various styles, including the snatch, the clean and jerk, and more. Follow the hefty hypertext links to sites about Master Lifters, nutrition, and training locations. Use the Weight Lifters Calculator to estimate lifting formulas or to balance your checkbook. The Coach's Office section has articles and tips by actual weight trainers about coaching, competition, grips, and basic training routines. *–BJB*

net rating:

travel

Egypt Has It All
http://163.121.10.41/tourism/

This site is more a brochure than a repository of nitty-gritty detailed info.

Got an itch? Egypt can scratch it. Spiffy and just a little tacky at the same time, this site is really a fancified travel brochure with lots to look at, but none of the nitty-gritty travel info that would make it truly useful. Instead, the whole thing smacks of a sales pitch. Netscape users can get an autopiloted tour of the site, but be warned: It takes a while. With a slight adjustment in tone and more hard data, however, this page could win a blue ribbon. Or a blue bee. *–PJ*

net rating:

Europe by Eurail
http://www.eurail.com/

A downloadable itinerary planning program is one of the pluses here.

This is a pretty snappy primer on seeing Europe by rail. Everything from fares and schedules are available, plus basic info on how to plan a trip and what to expect once you're there. Windows users can download EuroData, an itinerary planning program, and anyone can visit the Elysees Cafe to share travel tips, relate anecdotes, and the like. Heading up the page is a pretty low-key pitch for two books on the subject, but there's plenty here to get you started for free. Only one problem: Dense graphics make for slow going. *–PJ*

net rating:

Fodor's Travel
http://www.ypn.com/travel/

Get in travel mode by browsing Fodor's, which offers a good metapage of online resources that mirror the *Net.Travel* book published by Fodor's Michael Wolff. All the links and listings cover much of the same material: newsgroups, Web sites, and e-mail newsletters covering most of the globe. (Not surprisingly, this U.S.-centric guide lists the fewest resources for Africa, and the most for Western Europe.) There is a theme travel section that includes info on "bizarre tours," as well as golf, skiing, fishing, gay, and gambling vacation packages. *–KW*

net rating:

In Italy
http://www.lainet.com/~initaly/

Confusing organization keeps this page from being very useful. The nice-looking, well-meaning folks who assembled it have put stuff for sale (villa rentals, tours, cooking schools) next to (undated) journal entries next to travel advisories on exchange rates and weather. The regional festival listings are hard to read. The best part of the whole site are the links to other Italy sites, including chat rooms, regional info, business pages, and even Italian Web servers. Go straight there (**http://www.lainet.com/~initaly/itonweb/links.htm**); skip the rest. *–KW*

The best thing about this site are the links to other Italy sites.

net rating:

Jerusalem Mosaic
http://www1.huji.ac.il/jeru/jerusalem.html

A timeline helps guide you through Jerusalem's rich historical lore.

A little dry in terms of presentation, this site is nevertheless full of interesting information – mostly historical material on what may be the most consecrated spot on earth. Navigable by timeline, from the First Temple period to the current State of Israel, each era can be explored at some length, with close-ups on costumes and personalities, even recipes from bygone eras. Regrettably, all of it suffers from a lackluster design and writing that will remind folks of nothing so much as junior high World Civ. *–PJ*

net rating:

London Calling Internet
http://www.demon.co.uk/london-calling/

Dribs and drabs, odds and ends – that's London Calling Internet for you. After wading through some heavy marketese up front, you'll find a hodgepodge of theatre, movie, and music reviews and listings. They're reasonably current, but with nary an address or schedule, in case you actually wanted to catch the show. There are gossipy news bits about the London scene, but these aren't dated (nor are sources cited). A few London shops and community organizations are grouped together, but not compellingly enough to make you want to return. C'mon, sweeties, this is too far from Ab Fab. *–KW*

net rating:

Mountain Travel – Sobek
http://www.mtsobek.com/

This content-rich site will please real and armchair travelers alike.

Thrill-seekers with money to spend will be interested in this site, online home to a company almost synonymous with adventure travel. It's quite a site (business must be good), with an interactive world map, a full catalog of excursions, reservation information, and electronic postcards. From here you can connect to Sobek joint projects – Virtual Antarctica and Virtual Galapagos. Or go to a Palace chat room where you can dress up your surrogate self to look like a penguin or zebra (or whatever) and talk to like-minded predator and prey. Seems a little bizarre, that, but O.K. *–PJ*

net rating:

Roadside on the Web
http://www1.usa1.com/~roadside/RoadsideWebPage.html

Get a list of great diners, mostly in the Northeast part of the U.S., here.

Even on a T1 connection, this one is slow – so slow that an otherwise promising page is nearly undone by sheer sluggishness. Still, if you're a sucker for diner kitsch and want to see some of it online, pour yourself a cup o' joe and wait for Roadside to download. Once you're on, they do warn you about all the graphics. And I should warn you that it's regional, concentrating almost exclusively on great eateries of the Northeast. I visited a cafe in my old hometown of Newport, RI, and felt like I'd really been there. For anyone interested in buying and running a diner, the site is a required stop. *–PJ*

net rating:

Slowwwenia
http://www.ijs.si/slo/

Part of the former Yugoslavia, Zagreb lies just off its Eastern border. Despite the ominous proximity of its war-torn neighbors, this Slovenian home page projects a sunny disposition, with a whimsical, cartoon chicken-and-egg motif. The site is not so much a travel bureau site as it is a site for all things Slovenian. As such, much of it is in the Slovenian language only, including the "top-secret" section devoted to erotica. To get your bearings, go to the interactive map of the country, but don't expect to be floored by the links. Things are still a little rudimentary here. *–PJ*

net rating:

Tales: Visit California
http://www.tales.com/

You're better off visiting a bookstore to find California than you are visiting this site, which is a mighty poor display of the state's tourist outlets, retail shops, and historical snapshots. When I checked, many of the links didn't work, and there were scant listings for cities and services. The best part is the colorful image map of the state on the top level, which does work. But once you're searching for city names, stores, or sights to see, there's not much there. *–KW*

net rating:

The Rough Guide
http://www.hotwired.com/rough/

Here's an excellent , very cool start for independent travel and adventure info. Rough Guides, a well-known travel publisher, has joined forces with *HotWired* to offer a friendly Web umbrella over a host of their titles. You can browse the catalog, of course, or read selections of interest from numerous titles. These selections have links to RG's recommended hotels, restaurants, clubs, and so on. You can also link from here to RG phrasebooks, other travel sites of note, a women's page, or a travel anthology for the disabled. The tone is low-key, the design is handsome, and the site is just plain good. *–KW*

net rating:

Tourism, Tunisia
http://www.idsonline.com/tunisia/tour/tour.html

Spend some time here, and you'll be convinced Tunisia is the place to be.

Well, it's travel bureau stuff is what it is – but first-rate travel bureau stuff, with lots of idyllic images of art and architecture, and brilliant sunsets through palm trees. There's some unexpected stuff, too: a great exhibit of Tunisian postage stamps and a pretty thorough, if unerringly positive, news section. You can get business news, including exchange rate information, and contact numbers for relevant agencies. It's a beautiful, straightforward, and intriguing site that will go a long way to convincing you that Tunisia is the place to be. *–PJ*

net rating:

Wine Country Review
http://felix.scvnet.com/~jkolesar/

Whatever happened to the Dionysian debaucheries once associated with the grape? Whence all this hoity-toity stuff, the quaint sipping tours of the vineyards? Rhetorical musings aside, I didn't find much to like here. The graphics looked like they were scanned through gauze. A good deal of the text is in a shade approaching hot pink, and is full of that wine critic cant: "The 1993 Chardonnay has a medium to light straw color with aromas of butterscotch, light vanilla, citrus, and poached pears. On the palate, its flavors are hints of red delicious apples, vanilla, and inklings of grapefruit." Uh-huh. *–PJ*

net rating:

vanity

91 Argyle Street
http://plato.digiweb.com/stuka/

Roomies of 91 Argyle Street provide for their guests while sharing their tales.

The residents of 91 Argyle Street invite one and all to crash beneath the snowy-roofed shelter of their pad in Rochester, NY. Each roomie generously provides for his or her guests. Todd's animation-laden "Duck Soup" warms the belly in exchange for advice with his current "Headache" scenario. Brandon, although admitting he started his page because of live-in peer pressure, breaks out his collection of drawings from napkins and school notebooks. Jason chronicles his own travels, using a U.S. map with clickable green dots to call up his photos by region. Well done, and beats the K.O.A. *–JS*

net rating:

Andoman's Home Page
http://www.ssimicro.com/~xandoman/firstpg.htm

Be instructed about 100 things to do if you only had 100 days to live.

Ando, a high school senior, selects a series of cool quotes to precede his list of 100 things to do with only 100 days left to live. The true highlight of the site, however, is the Ando cam. Every 60 seconds, the camera sends a picture from his workstation at SSI Micro to the page. I never could find him in his work habitat, though, nor do I remember being work listed in his 100-day itinerary. *–JS*

net rating:

Enter My World
http://student-www.uchicago.edu/users/egswanso/

A powerful image of sunlight breaking through clouds above Stonehenge leads the visitor into the world of a Chicago college student. The site's creator adds descriptive details by documenting who and whatever he comes into contact with: that day's Chicago weather, a few dozen local restaurants, and his friends. So visitors get to be part of his world; it's almost, but not quite, as if they were there with him. He even includes a hypertext version of his class schedule. *–JS*

net rating:

Joel Sandler
http://pages.prodigy.com/joelsandler/

Joel's first home page began as a means of his keeping in contact with his parents (Down Under in Australia) from his native Northeast (Delaware). So what's Joel got going on? Photos from the blizzard of 96 and his graduation from the accelerated class of nursing at the University of Delaware, plus a note of kudos to his Pops for getting elected to the National Academy of Engineering. Not much for the outsider, but the site serves as a great reminder to call your folks. *–JS*

net rating:

Missy's Poetry
http://www.students.uiuc.edu/~g-jaros/missy.html

A poetry buff, Missy happily shares her old and new poems with you.

Missy's site has a simple design. Hyperlinks take the reader to her poetry, divided into "new stuff" and "old stuff," but effectively, the site is a single long page. Missy's collection of poetic endeavors will lead you in to the depths of her mind. Meanwhile, an entourage of scattered, pink happy faces will link you to Jim Morrison's song lyrics and other such poetic stuff. *–JS*

net rating:

Paul Levin's Flying Circus
http://www.sas.upenn.edu/~plevin/

Click here for my picture. Click here for my resume. Click here for my OMD trib-

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

ute page. Yes, this is a vanity page, all right. While it's slightly more current than last year's fashion, with Tables, rasped buttons, and a sound file, it's still pretty plain. That doesn't mean I don't like it. In fact, I think it's just fine. And, after all, there is a reference to that all mighty Goth band of my youth, Joy Division. But the best part? The "buy A house from my uncle in Alabama" bit, complete with photo. Tres cool! *–SK*

net rating:

Rick's Polyamory Page
http://www.geocities.com/Broadway/1496/

Seems Rick wants to sleep with everyone. Fine by me, though I do wonder why he has to chronicle this. No matter, he's chosen to enlighten us. Rick thinks we should all have multiple lovers, and explains why on two pages of mediocre construction quality, with some less-than-tasteful layout. No, it's not the pictures of the scantily clad women that offend me so much (in fact, they're pretty cute!), but the horrid green background on page two, and the illogical text. It's worth visiting for a chuckle, but don't take it too seriously. I would be more impressed if Rick would offer us a nude photo of himself, seeing as how he's so free and all. *–SK*

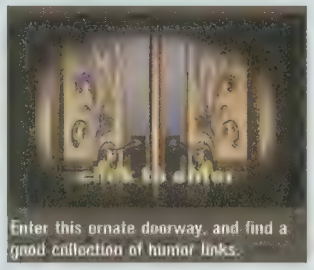
net rating:

Ron Turner's Home Page
http://www.connect.net/ron/

A tripped-out yellow alien welcomes site visitors, waving from within a brown, 70s-style, non-too-elegant layout. From there, get a run-down of Ron's personality and pursuits: he's a Scorpio, a Zen Buddhist, an "X-Files" fan, and a director of info systems. Ron is heavily into Gino Vannelli, busy creating a fanzine for the jazz musician with a complete discography and summary of Gino's works. That's some fan dedication, especially from someone with nearly a dozen interests of his own to pursue. *–JS*

net rating:

Ronald's Home Page
http://darwin.clas.virginia.edu/~att2u/



An ornate doorway is the entrance to the impressive realm of Ronald, where'll you find one of the cleanest, slickest personal pages around. Don't let the formal introduction and library theme give you the wrong impression. Ronald, an avid fan of "The Tick," definitely appreciates the humorous side of things, too. His well-developed Funnies section links to "Dilbert," "The Far Side," and "Calvin and Hobbes" strips. He also has collections of Random and Technical jokes. *–JS*

net rating:

Russ Emerson's Home Page
http://members.aol.com/dutch/

Russ Emerson's life-simulation Web site starts off a bit drab, then expands into an indulgent and elaborate autobiography, from birth to school to a career in military intelligence. A keeper of an "I Love Me" page with links to the Bald is Beautiful Hall of Fame, Russ gets away with shameless narcissism by maintaining thorough links to outside sources from his life: cities he has lived in, alma maters,. organizations, his favorite things, and even the general language sites of all the languages he speaks. *–JS*

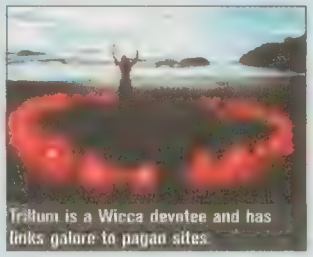
net rating:

Thomepage
http://tcw2.ppsw.rug.nl/~thomas/

The opening screen is alarming – like driving alone late at night and coming across a section of road with night crews and flashing red lights. Who maintains this roadside beacon? A bright young kid from the Netherlands, sporting a toothy smile. How bright? His site employs a little double entendre, offering a "Wet Look" and providing a photo of him that looks like it washed up on a beach. Under construction with Java apps, and written in English, Thomas is definitely a clever young lad. *–JS*

net rating:

Trillium's World
http://www.nebula.net/~trillium/

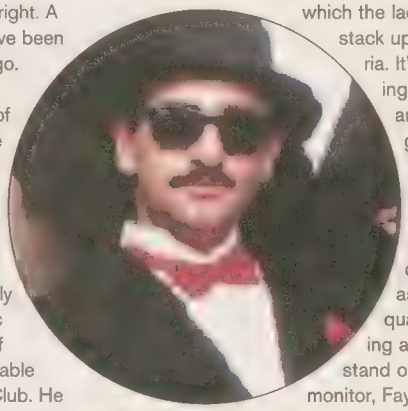


The serene blue sky in the background contrasts with Trillium's lead announcement: This page is "the FUTURE site of the 'Unofficial Shades of Evil Home Page.' " There's already a direct link to a BBS by that name. Trillium, active in the online community since 1993, is a devotee of Wicca and provides links to her favorite pagan resources. Most resources were unavailable at review time, probably due to construction woes from the Shades of Evil crew. *–JS*

net rating:

The Cool Dude

http://www.louisville.edu/~faalam01/

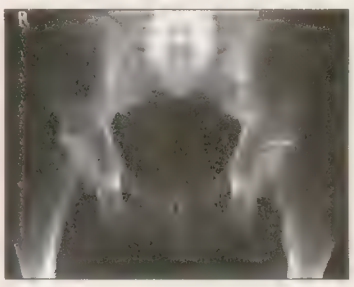


Fayez is one wild and crazy guy, all right. A native of Lebanon, he claims to have been Internet-ignorant just a few months ago. Now he's got a crackerjack page with Frames, great links, and just a whole lot of panache. Don't be fooled by the title. The whole "cool" thing is just a goofy, tongue-in-cheek ruse, an end-run-around his own awkwardness. He's an overachieving geek and he knows it.

A whole section of this site is devoted to Fayez's medical specialty, radiology. (Yep, he's a doctor.) Another is a tribute to his beautiful and wildly successful family. He's also a photographer, a music lover (on the lighter, sappier side of the spectrum, of course), and a movie buff. In school he was on the table tennis team and President of the Arabic Literature Club. He was editor-in-chief of his university yearbook. His sense of humor is odd, but healthy. Now, at 28, he's thoroughly engrossed in his Web page.

He's also lonely, as evidenced by "the test." ("So you actually think you're cool enough to be my girl? Amaaaazing!") in which the ladies can see how they stack up against Fayez's criteria. It's a funny, self-mocking exercise, mind you; another ruse. Fayez, ultimately, is just so flat-out geeky, he's charming. Don't ask me how that works, but it doesn't hurt that he's a foreigner. You know: vulnerable, doofy, speaks with an accent (I'm guessing on that). How could he miss?

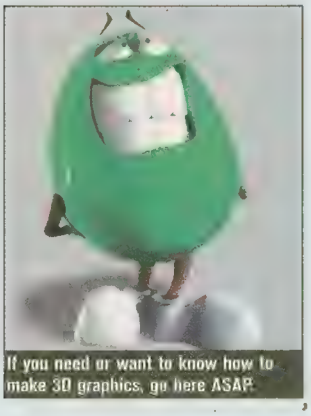
But none of that really concerns me. Whether or not he gets a date, what I like about his site, aside from the slick, no-nonsense construction, is the quality of the links (all navigable in Frames). Like having a newsstand on your monitor, Fayez has assembled some great and varied stuff, including *PHOTO Magazine* online, the Late Show with David Letterman page, DC Comics online, and a whole lot more. Good work, Fayez. Cool, even. *–PJ*



net rating:

web tech

3D Site
http://www.3dsite.com/3dsite/



Where do you go when you need that model of a wooden swan? Who do you turn to for a rendering of a 1950s blender? Have no fear, 3D Site is here, jam-packed with all your 3D needs. It's a robust resource for 3D computer graphics, up-to-date job information, and gallery listings galore, created and maintained by a 3D animator for 3D animators. If 3D graphics are your cup of tea, real or digital, route that browser in this direction. *–HS*

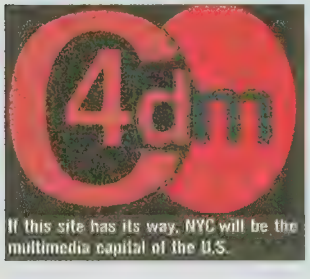
net rating:

Anicom
http://www.3dchor.com/

Here we have a sugar-coated press release functioning as the Web presence for AniCom, a developer of 3D animation software for Windows. The site works like this: A barrage of press-related quotes and product information greets you, along with a spicy dash of peppy superlatives. But beware. If you stumble off the splash page, you are immediately transported into the aesthetically challenged zone. This site is lackluster and shoddily constructed. If you're looking for anything more than a price list, you'll be disappointed. *–HS*

net rating:

Digital Multimedia Research Lab
http://found.cs.nyu.edu/



Get out the squeegee. Call the window washers. Amid the hustle and bustle of the Big Apple emerges C4DM, on a mission to promote multimedia in New York state through research, development, and educational programs. This is a no-nonsense effort to inject new information technologies into the industries and endeavors that have made New York the economic and cultural epicenter it is. The slick site provides us with a window into the workings of C4DM. You get just a tease, a tickle, a whisper of what's going on behind those doors, and believe me, my face was pressed up against that window till it got all fogged up. *–HS*

net rating:

Heidsite
http://www.mcn.org/heidsite/

Bam! Instant bookmark material. Heidsite is a pure, Macintosh-geek, energy-suffused, powerhouse of a site. *MacWorld*'s Jim Heid frontlines this atomically correct site with Mac gems, jewels, tips, and trinkets, all of which specifically target the media production arena. A 50s-inspired design allows you to dish up your TV dinner and hula-hoop your way into the future. Quite a nice touch. Clean, concise, and crammed with content. What more could you ask for? *–HS*

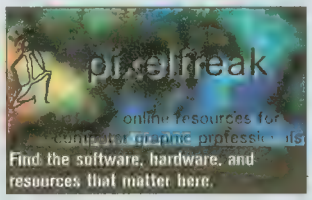
net rating:

Hyperstand
http://www.hyperstand.com/

Hyperstand is the black hole of multimedia development – a site that will entrap developers who just happen by, unaware of the goodies they'll find within. There are daily updates, articles, reviews, and columns, all of which cover the latest issues, trends, and tools. Search back issues of the print magazine, or download the best and latest in development shareware and demos, like audio editors and Netscape plug-ins. The oodles of articles on everything from Hyper-G's server technology to Dimension X are enough to send you into a printing frenzy. And although Hyperstand is the online version of *NewMedia* magazine, it definitely stands on its own two feet. *–LG*

net rating:

Pixelfreak
http://www.pixelfreak.com/



Pixelfreak might not be the freakiest, but it is a solid computer graphics site for the professional right-lober. There's plenty here that you'd expect from any self-respecting graphics site (like, umm, intriguing, well-executed graphics), as well as some of the annoying stuff that you'll find at too many sites nowadays (like, errr, a not-so-interesting use of Frames). Still, there's lots 'n' lots of the latest on graphics and animation in five departments – information, reviews, a message board, links, and an interactive job board – that are chock-full of the software, hardware, and resources that matter. *–LG*

net rating:

Surf Communications, Inc.
http://www.expressway.com/

What? You're not getting lightning fast Internet access from that 14.4 modem? Are you ready to trade sloth for stealth? Well, Surf Communications can help you do just that. According to the site, Surf Comm. is able to deliver the complete ISDN solution. This straightforward site walks you through Surf's services, Internet kits, FAQs, and features. The page is easy to read and navigate, void of any flash or sizzle. But then again, when you are thinking ISDN, you are thinking reliability, not sass. So when the time comes for you to make bookends out of those 14.4 and 28.8 modems, Surf Communications is worth a peek. *–HS*

net rating:

The Imagination Club
http://www.tiac.net/users/rpardi/TheLingoClinic/The_Imagination_Club.htm

With a site design that's instantly reminiscent of the choose-your-own-adventure-genre of paperbacks, the Imagination Club provides a unique, refreshing interface enabling visitors to sneak and slither their way through the services. So, bundle yourself in patience and throw a little tenacity in the backpack. This site is definitely worth more than the casual courtesy glance. From design/programming for interactive projects to Lingo, Shockwave development, animation, and graphics info, Imagination seduces visitors encountering the often hostile realm of project development. *–HS*

net rating:

W3 Kiosk
http://www.lib.siu.edu/w3kiosk/w3kiosk.html

Hot summer night. I'm all alone in my bedroom. The lights are dim, the music soft, and the fantasies begin. The allure of a WWW-based system for creating remotely modifiable hypermedia applications beckons me once again. If you're distracted by similar longings, just bounce on over to W3 Kiosk. The free W3 Kiosk software allows commands from a server to be sent to a multimedia program through your browser. Translation: When you link from a kiosk-friendly Web page, it sends information that can control all the bells and whistles in a local application. Instant gratification. *–HS*

net rating:

CONTENT	AESTHETIC MERIT	TECHNO SMARTNESS
Rich in nutrients	*A visual 10!*	*Rocket science material*
Fair amount of content	*Appealing*	*Smart*
Needs more juice	*A dog*	*Needs a brain*

The Blue Pages' Web Site Reviewers:

BJB: Bonnie J. Burton (burton@home.net), 23, is a geek grrl who writes articles on computer culture, works as a Web Editor/Harvester for @Home, wants an e-mail boyfriend rather than a real one, and thinks design consultant Roger Black is a Wildfire god.

CC: Chris Charla (theiocat@aol.com) is "one of the best Skee-Ball™ players on the West Coast," according to a recent article in *Snak Fud* fanzine (of which he is editor). He has the prizes to prove it, too.

DP: David Pescovitz (pesco@well.com) is a carbon-based artificial intelligence preparing for disembodiment during the Great Millennium Freakout. It also edits Spiv's Nrrrd site (http://www.spiv.com) and spews mutant memetic spores onto the pages of *Wired* and *bOING bOING*.

DR: Deidra Ramsey is a 1992 WVU J-School graduate with a minor in African Studies, who thinks that Karen Sylvester and Noel Copeland are digable fine artists. (Can you dig it?) She loves her Mac, and is online more often than her budget can handle.

HS: Heidi Swanson (heidi@thenet-usa.com), Associate Digital Editor, always wears black and has more Photoshop plug-ins than friends. You can see the amazing animations that come out of her computer at http://www.thenet-usa.com.

JP: Jon Phillips (jon@thenet-usa.com), *The Net*'s Features Editor, is more afraid of you than are you of him.

JS: Jason Sneed (csp94@netcom.com) is a writer and vagabond who also functions as Minister of Production of Constant Synthesis Project (http://www.consynpro.com/).

KW: Karen Wickre (Kwickre@aol.com) has co-authored *Atlas to the World Wide Web* (Ziff-Davis Press, 1995), edited *Guide to Netscape Navigator* (ZD Press, 1996), and contributed to *Yahoo Unplugged* (IDG Books, 1995).

LG: Lauren Guzak (guzak@thenet-usa.com), *The Net*'s CD-ROM Editor, plans a hostile takeover of the world once she gets her life in order.

MS: Minda Sandler (minda@thenet-usa.com), when not editing *The Net*, ponders what color to dye her hair next. She's not related to Joel or Adam.

PJ: Pat Joseph is a pseudonym, although not a very clever one. And he's also the new editor of The Blue Pages. And a Communist besides. And he has jet black hair.

SK: Shel Kimen (shel@thenet-usa.com), Web Director and Blue Grrrl (BG), is the scary monster under your bed and if you're not nice, she's going to get you. Meanwhile, check out her creative endeavors at http://www.thenet-usa.com.

TG: Tom Geller (TGeller@aol.com) is a San Francisco-based writer who has used online services since 1986. He has no bodily warts.

WKC: *The Net*'s News Editor Wayne Cunningham (wcunning@thenet-usa.com) is afflicted with the postmodern condition. He grafts areas of human endeavor together at will, and is happy practicing such modern anomalies as infotainment and imagineering.

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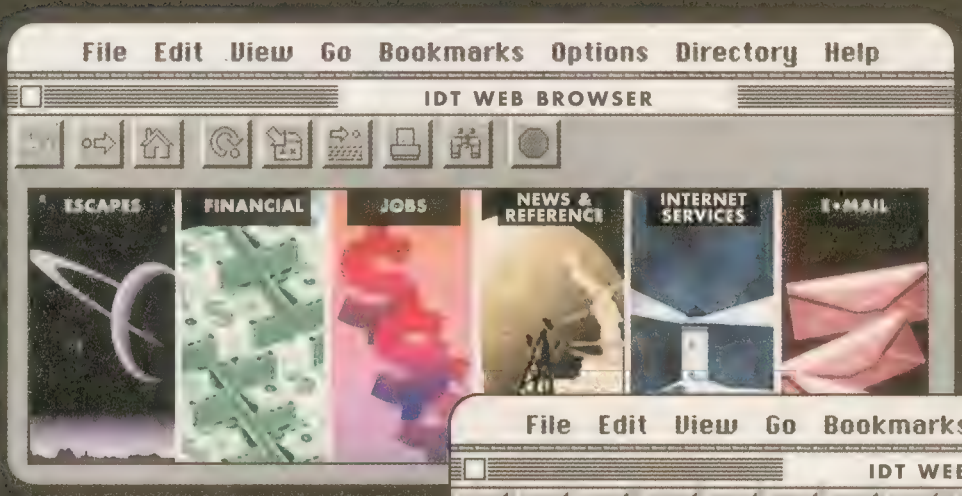

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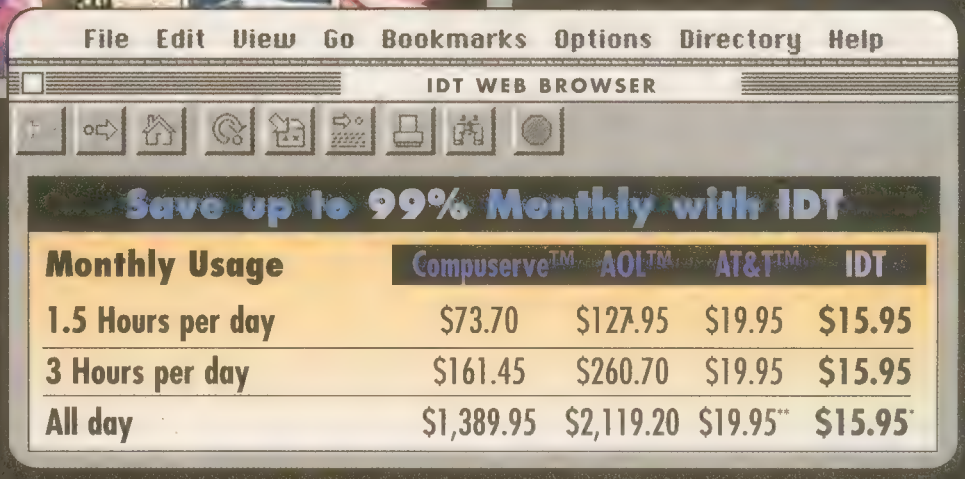

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suck.

by R.U. Sirius

Pointy Headed Intellectuals Conquer Web

Suck (**http://www.suck.com/**) is *so* hip, so right on target for the blossoming World Wide Web. It's the perfect pitch – a dream concept. It's got daily content. Hip, cynical, Gen-X attitude. Insider commentary directed specifically at this new terrain. *Bulls eye!* But there's this thing about Suck that nobody really thinks about much. It wasn't developed by an agency. It didn't come out of a marketing study. And the guys who make it happen, Carl Steadman and Joey Anuff, are... *intellectuals!* That's right. The Web's most legendary success story (content-wise) is the product of a couple of pointy head types. Carl, for instance, doubles as Web editor for CTHEORY (**http://www.ctheory.com/**), a site so cerebral that it can only be understood by French theorists and Martians. Now fully funded by The Evil Empire (a.k.a. HotWired Ventures – **http://www.hotwired.com/**), Suck's daily take on the culture of the Web requires no introduction. Cynical and whipsmart, Suck proves that the Web can be a thinking person's medium. Or maybe it just proves that if you're nasty on a daily basis, people will check in just to see who the target is, and your hit rates will sore.

R. U. Sirius: Virtually all of Suck's commentary is about the Web. Even when it veers off into general culture commentary, it ties back to the Web. Are you obsessed with the Web, or is this more of a "dirty job but somebody's gotta do it" thing?

Carl Steadman: The only way to critique a medium is to work within it. Now, to critique isn't to break something down. Not that Suck is about constructive criticism, but we go back to the Greek root of the word, which means, "to put into crisis." I think it would be easy to say that we love the Web – it holds a lot of promise. It's distributed. It's content-rich. But it's not all there yet. If it disappoints so often, it's only because we expect so much. Instead of watching television, we keep going back to the Web. So Suck hopes to nudge things in the right direction, to create a challenge for others. Criticism would also tend to indicate that we treat the medium seriously.

Joey Anuff: From my perspective, writing "reviews" of anything is a complete waste of time. Our essays have more in common with book reviews, except the odd link allows us to dispose of tiresome exposition. We encourage our writers (and try ourselves) to get beyond criticizing any particular site. Instead, we try to fish for the interesting trend or egregious cliche, and draw some novel insight into the implications thereof. Beating a seemingly irrelevant or trivial tangent into the ground is A-OK with us.

R. U. Sirius: Do you ever tire of having to maintain your attitude? Do you wish that you could just praise something, once in awhile?

Joey Anuff: Skepticism isn't so much an attitude as a world view. I like to think it makes life more interesting (although talking about one's world view is anything but). We praise sites and people almost as often as we knock them – which is to say, not very often. As a general (but not strict) rule, we tend to avoid writing PR or neg PR for anyone. So don't fall in the trap of boxing us into the "bad attitude" corner. It's not as worthwhile an observation as simply acknowledging that we *have* an attitude, aptly encapsulated as "you can't bullshit a bullshitter." The great mass of would-be Web pontiffs are churning out bullshit reviews grounded firmly in the school of "site x is pretty good considering the limitations." In three years, all that press will be so much bit vomit, while I immodestly believe many of our essays will still stand on the merits of their ideas.

R. U. Sirius: What do you *like* on the Web? What would you like to see?

Joey Anuff: I'm fairly traditional in my sense of Web aesthetics – I like content ASAP (no menu screens *ever*), simple but well-thought-out design, and unique POV. These things would make me happy – more stupidity, offensive marketing scams, poorly conceived spams, self-serving soapboxing, and eye-affronting design. And if, amidst these worldwide, if not world-class, errors, a daisy springs from the manure? I'll be as surprised and delighted as you, I'm sure.

R. U. Sirius: Are you guys going to spin off? Expand?

Carl Steadman: Suck 2.0 – five new weekly sections, along with the daily column. With the debut of Suck 2.0, we'll also be sporting ads. Of course, we're now embracing the same technologies that we decry in our columns – Frames, Java, JavaScript. As we've said before, the only way to critique a medium is from within it.

Joey Anuff: My dream is to evolve Suck from a few kids with a megaphone to a multinational media behemoth lacking any whiff of its previous charm, agility, and Web savvy. It'll be friggin' cool.

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